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GOVERNMENT OF TAMIL NADU
TRUTH ALONE TRIUMPHS

PROPOSED
WORKING PLAN
FOR
THE DINDIGUL FOREST DIVISION

PART I

By
Thiru K. S. DEHAL, I. F. S.
Deputy Conservator of Forests

Under the Direction of
The Chief Conservator of Forests
MADRAS-6

Office of the Forest Working Plan Officer
MADURAI

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1st April 1984 to 31st March 1994

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MADURAI

முதன்மை தலைமை வனப்பாதுகாவலர் அலுவலகம் நூலகம் 12874 சென்னை-600 015

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INTRODUCTION

This is the first working plan for this newly formed Dindigul Forest Division (excluding Sirumalai Range which has been added subsequently to the Division). This division has come into existance on bifurcation of old Madurai North Forest Division into Dindigul and Kodaikanal Forest Divisions as per G.O. Ms. No. 468, Forest and Fisheries Department, dated 19th April 1982.

To prepare this plan, the preliminary work was started with effect from 1st April 1980 with Thiru *K. K. Somasundatram*, I.F.S., as Working Plan Officer. On his transfer, Thiru *P. K. Ponnuswamy*, I.F.S., joined during July 1980 as Working Plan Officer. He prepared and submitted Reconnaissance Report during December 1980 and was transferred in January 1981. The author joined as Working Plan Officer on 1st March 1981. Reconnaissance Report was discussed on 26th June 1981 at Madurai.

Forest Rangers S. V. Raghavan and Palanisamy, who helped for preparation of Reconnaissance Report, both were transfered out during April 1981. Then, Thiru . Kannan P. Abthalibu and R. Ravindran worked at different periods and assisted in collection of statistics and other field work. Apart from Rangers, six Foresters also assisted in field work. All the members of staff extended good co-operation.

Suddenly, author was transfered on 30th June 1982. These frequent changes in personnel of working plan partly, actually, hampered the progress of work, considerably.

The author wishes to thank field staff for their whole heated co-operation. Thanks are also due to Thiru K. Kandasamy, Forest Ranger who helped wholeheartedly in writing work and preparation of maps.

Thanks are also due to Thiru C. Venugopal, I.F.S., Conservator of Forests (Working Plan) for his suggestions and advice.

K. S. DEHAL, I.F.S.,
Forest Working Plan Officer
Madurai.

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PART-I.

CHAPTER-I.

THE TRACT DEALT WITH.

Section 1—Name and situation.

1. The area dealt with under this working plan comprises of such forests of the Madurai District, included in the Dindigul forest Division of Madurai Circle (Tamilnadu) as contemplated in G.O. Ms. No. 468, Forests and Fisheries Department dated 19th April 1982. The Headquarters of the Division are at Dindigul, 64 Kms from Madurai, the District Headquarters, towards North.

2. These forests are comprised of reserved forests and reserved lands declared under section 16 and 26 of Madras Forest Act, 1882 respectively, and situated in Kodaikanal, Periakulam, Uthamapalayam, Palani, Dindigul, Nilakottai and Vedasendur taluks of Madurai District. The tract is bounded on the North by Thiruchirappally, Periar and Coimbatore Districts, to the east is situated Kulithalai taluk of Tiruchirappalli district. On the west is situated Kerala State and Kodaikanal Forest Division and to the South, Madurai South Forest Division.

3. The tract lies within parallels of latitude 10°—0°—10°—3910
North and between meridians of longitude 77°—13[1] and 78°—25[1] East.

Section 2—Area, Extent and Distribution.

4. The total area of all forests of the Division is 107748.66 Hec. (1077.486 Sq. Kms.) as on 1st May 1982.

5. The bulk of the forests lies on the Lower Palani enblock and remaining scattered blocks in Ayyalur Range.

6. The forests consist of 50 R.F. blocks and 6 Ex-Zamin forest blocks notified as reserved lands.

7. The forest area of the Division is distributed in five Ranges, excluding Dindigul Range for its management. The statement on the next page shows the distribution of forest area by Ranges and taluks.

Our National Forest Policy has laid down that 33 percent of area in plain and 60 percent of area in hilly tracts should be maintained under forests as insurance against natural calamities and emelioration of environment. The following statement gives the glance of percentage of area under forests in this Division :—

STATEMENT.

Serial number.	*Name of taluk.*	*Total geographical area.*	*Total forest area.*	*Percentage of forest area to geographical area.*
(1)	(2)	(3)	(4)	(5)
1	Kodaikanal	98,916.06	61,495.81	62.17
2	Palani	1,52,247.19	20,515.66	13.47
3	Dindigul	1,28,246.45	32,625.75	25.44
4	Nilakottai	1,06,308.97	11,688.23	10.99
5	Vedasendur	1,03,237.74	13,816.35	13.38
6	Uthamapalayam	1,35,007.28	50,095.18	37.10
7	Periakulam	1,51,447.18	47,746.14	31.52

(for arriving at these figures, total forest area in each taluk has been taken into account).

It is clear that forest area is below national target in all taluks except Kodaikanal.

9-9-1

STATEMENT SHOWING THE DISTRIBUTION OF FOREST AREA BY RANGES AND TALUKS.

Serial number.	*Name of Taluk. Name of Range.*	*Melur.* R.F.	*Melur.* R.L.	*Nilakottai.* R.F.	*Nilakottai.* R.L.	*Dindigul.* R.F.	*Dindigul.* R.L.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Bodi ..	..	..	..	..	..	..
2	Thandikudi ..	..	..	844.36	..	..	..
3	Kannivadi ..	..	..	729.99	..	462.84	7,278.41
4	Palani ..	..	..	..	..	..	..
5	Ayyalur ..	519.91	..	..	..	..	..
	Total ..	519.91	..	1,574.35	..	462.84	7,278.41

Serial number.	*Name of Taluk. Name of Range.*	*Kodaikanal.* R.F.	*Kodaikanal.* R.L.	*Uthamapalayam.* R.F.	*Uthamapalayam.* R.L.	*Periakulam.* R.F.	*Periakulam.* R.L.
(1)	(2)	(9)	(10)	(11)	(12)	(13)	(14)
1	Bodi	11,628.11	..	1,582.38	28,626.30	3,212.73	..
2	Thandikudi ..	5,981.57	..	..	..	..	..
3	Kannivadi ..	4,734.89	..	..	..	..	..
4	Palani	13,271.23	..	..	..	..	..
5	Ayyalur ..	..	..	..	..	..	..
	Total ..	35,615.80	..	1,582.38	28,626.30	3,212.73	..

Serial number.	*Name of taluk. Name of Range.*	*Palani.* R.F.	*Palani.* R.L.	*Vedasendur.* R.F.	*Vedasendur.* R.L.	*Total area of each Range.*	*Percentages of Total Divisional area.*
(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)
1	Bodi ..	..	..	..	..	45,049.52	41.81
2	Thandikudi ..	..	..	..	..	6,825.93	6.34
3	Kannivadi ..	3,863.19	..	385.65	..	17,454.97	16.20
4	Palani ..	7,931.23	2,203.59	..	..	23,406.05	21.72
5	Ayyalur ..	..	..	14,492.28	..	15,012.19	13.93
	Total ..	11,794.42	2,203.59	14,877.93	..	1,07,748.66	10,000

9. The detailed list of Reserved Forests and Reserved lands is given in Appendix I.

Section 3—configuration of the Ground.

10. The tract is mostly hilly comprising of western ghats and allied hills called Palani hills and scattered hillocks of Ayyalur Range. In the Palani hills, most of forest area lies on the lower Palanis.

11. *Lower Palanis.*—The Lower Palanis consist of confused jumble of peaks ranging froml 1,000 metres to 1,700 metres high separated from one another by steep wooded valleys of natura beauty. These hills are also called Thandikudi and Virupakshi hills. Their valleys are stu ded with several small villages picturesquely surrounded with groves of Jack, Mango, Orange, Lime, Citrus and other trees. The cultivation here, chiefly consists of turmuric, ginger, cardamoms, plantaions, caster oil seeds, rice, varagu, ragi and cumbu. Cofiee was introduced on these hills in 1846, and is now grown over considerable areas.

12. *Ayyalur Hills.*—Besides Palani hills, the Division includes large number of isolated peaks which belong to no regular range and can be safely called as Eastern ghats. The great rock of Dindigul is worth mentioning. It rises to the height of 280 feet, from low lying plains, and is precipitus and in accessible from all sides. It was formerly fortified by the Nayaka Kings, by Hyder Ali and even by the British till 1815, and regarded as the Key to the Madurai Country from its Northern side.

13. Others are Rangamalai (3,099 feet), Karumalai (2,527 feet) Vandamalai, Thoppusamimalai and Idayakottai hills.

14. *Drainage.*—The Lower Palanis generally drain towards north into Amaravathi river and Shanmuganadi through many riverlets. Hill Ranges of Bodinaickanur drains towards south-east into Vaigai river. Whereas the hills of Ayyalur region drain towards all directions but bulk of drainage is taken by Kodavanar river.

15. List of important rivers and Streams is given below :—

LIST OF PERENNIAL AND SEMI-PERENNIAL STREAMS ORIGINATING FROM RESERVED FOREST OF DINDIGUL DIVISION.

Name of range.	*Perennial stream.*	*Semi-perennial Stream.*
(1)	(2)	(3)
Palani	Kudiraiyur	Palur.
	Porandalar	Pachiyur.
	Varadamanathiyar	Kuttar.
		Vannathi Odai.
Kannivadi	Siruvar	Komaiipatti Ar
	Parapalar	Manjolai Ar.
		Pambar Ar.
		Periyakombai Ar.
		Arasamarathupatti Odai.
Thandigudi	Maruthanaithi Ar or Ayyampalayam Ar.	
	Kodavanar.	
Bodi	Varagu Nathi	Selambai.
	Thalayar	Varattur.
	Mulayar (part)	Manjalar Pambar
		Vannathi Odai
	Kottagudi Ar.	Iruttar.
Ayyalur	Nil.	Nil

Section 4—Geology, Rock and Soil.

16. The rock formations met within these forests and the country immediately surrounding them is of Archean system. The main rock types encountered fall into two groups, Charnokites and Khondalites.

17. The Charnockite group of rocks consists of the acid charnockite and mangetgetite—quartizite. These rocks are predominantly abundant in the Palanis.

18. The Konadalit group of rocks consists of Crystallise lime-stone, Calc-gnesis, garmet-sillimanite-gneise, and biotitgneises and abounds in plains.

19. *Minerals Resources.*—The following minerals occur in the Division :—

I. *Gem stones.*—A few gem stones comprising rubies, acquamarines, amethyst etc., are picked up in soil derived from pegmatite views on weathering annually in Melur, Dindigul and Palani taluks.

II. *Lime Stone.*—About 50 per cent of the total reserve of Crystalline lime stone estimated in Madurai District (44 million tonnes) lies in this Division. It is a proved building material.

III. *Malybdontte.*—Malybdonite occurs near Karadikuttam in Palani taluk. It is sulphide of Malybdenum, valued for manufacturing of high speed cutting tools. Occurance of Malybdenum with low percentage (less than 0.001) is also located near Chatrapatti on Palani-Dindigul road.

IV. *Gold.*—Gold was once washed from the alluvium and sand at the foot of the hills near Palakkanuthu Travellor's Bungalow (in Kannivadi Zamin) but the quantity obtainable was so small that it was not found economical.

20. *Soils.*—Generally, the red soil is found in major parts of the Division approximate 85 per cent developing from gneissic parent rocks. These are ferruginious in nature exhibiting high iron contents. Black soil is met within part of Periakulam and Palani taluks. The soil on lower slopes is of residual type, stony, bouldry and dry, supporting poor growth.

21. Alluvial soil is also met in sheltered valleys and along the streams, supporting good, forests growth.

Section 5—Climate. ..

22. The climate of this part of District is generally hot and dry except in the hilly tract of Palani hills. The higher reaches of Palani have a climate of their own with moderate temperature allround the year and fairly good rainfall during north-east monsoons.

23. The cold season in plains is December, January and part of February. During these months heavy dews refresh the earth and the nights become little chilly. Whereas March, April and May are the months of summer which is quelled by early showers in June. The tract receives south-west monsoon from June to September and north-east monsoon in October and November.

24. *Temperature.*—The table on the next page gives the mean average temperatures recorded at Madurai Observatory which can be taken as typical for the whole Division except for few pockets of Lower Palanis.

25. Frost is uncommon in plains as well as hilly tracts of the Division. The range of humidity in plains does not fluctuate much, the mean annual being 67 per cent.

26. *Rainfall.*—The statistics of rainfall from available rain gauge within the Divisions are given in Appendix II.

27. The average percentage of rainfall during different periods of the year is as under (Madurai Observatory).

June to September—35.2 per cent.

October and November—37.6 per cent.

December to May—27.2 per cent.

28. The following table shows the average number of rainy days in each month and average monthly rainfall for Madurai Observatory.

RAINFALL (mm.)

Month.	*Monthly total.*	*Number of rainy days.*	*Highest rainfall in*	*Date and year.*	*Mean wind velacity KMPH.*
(1)	(2)	(3)	(4)	(6)	(6)
January	26.2	1.6	152.4	..	7.3
February	16.0	0.8	188.0	8/1929	6.6
March	21.3	1.3	100.3	27/1947	5.8
April	80.8	3.9	166.4	9/1891	5.1
May	58.9	3.7	99.6	17/1882	6.3
June	30.9	2.1	105.4	22/1927	9.6
July	47.8	2.9	124.5	10/1893	9.3
August	117.1	6.3	112.3	21/1910	7.0
September	122.7	5.5	154.2	5/1946	6.4
October	179.2	9.8	128.8	20/1909	4.9
November	161.2	7.9	169.7	3/1921	5.2
December	42.8	3.1	165.6	2/1955	6.9
Total/annual mean ..	904.9	48.9	188.0	..	6.7
Years	30	30	80	..	80

STATEMENT OF MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY RECORDED AT MADURAI OBSERVATORY (1931-1960) AIR TEMPORA-TURE IN °C.

Month.	*Mean of*			
	Daily maximum.	*Daily. maximum.*	*Highest in the month.*	*Lowest in the month.*
(1)	(2)	(3)	(4)	(5)
January	30.2	20.9	32.6	18.7
February	32.4	21.6	35.0	18.8
March	35.0	23.4	37.8	20.7
April	36.3	25.4	39.3	22.3
May	37.5	26.3	40.1	22.7
June	36.7	26.3	39.3	23.8
July	35.7	25.7	38.6	23.2
August	35.3	25.2	38.1	22.6
September	35.0	24.8	37.4	22.4
October	33.0	24.0	36.1	21.9
November	30.6	23.0	33.5	20.5
December	29.7	21.6	32.1	19.2
Annual/Mean	33.9	24.0	40.4	18.1
Years	30	30	30	80

STATEMENT OF MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE AND HUMIDITY RECORDED AT MADURAI OBSERVATORY (1931-60) AIR TEMPERATURE IN°C—*cont.*

Month.	*Extremes.*				*Relative humidity (percentage).*
	Highest.	*Date*	*Lowest.*	*Date.*	
	(6)	(7)	(8)	(9)	(10)
January	34·4	28/1936	15.6	28/1907	75 54
February	58.3	25/1906	16.1	7/1884	74 44
March	41.7	27/1882	17.2	16/1909	69 37
April	41.7	29/1935	19.4	13/1909	68 46
May	41.7	14/1956	17.8	29/1920	61 47
June	42.2	4/1935	17.8	14/1897	55 45
July	40.6	23/1884	19.4	20/1891	56 45
August	40.0	29/1891	20.6	13/1912	60 50
September	39.4	8/1928	20.0	7/1908	63 51
October	38.3	2/1934	18.8	28/1911	73 63
November	36.1	3,1948	17.2	12/1909	76 68
December	35.0	10/1951	16.7	5/1920	73 62
Annual/Mean	42.2		15.6		51
Years.	80		80		..

29. *Wind* —The Mean Win i velocity at Madurai observatory is given in the above table.

30. Violent winds seldom blow in the district. Tempests and thunder storms are uncommon, but dust storms and whirlwinds do occur frequently. Generally the air is calm and undistributed throughout except monsoon period, but at nights there is almost always some movement and coolness in the air.

31. *Health* .—The Climate in the forest tract is generally healthy. No epidemics of Malarial Small-pox, and Cholera is recorded in the recent past. Peptic Ulcer is on the increase among staff which is probably because of food habits. Dysentry (amoibiac and bacillary) is also commonly met. Respiratory ailments are also common.

Section 6—Water Supply.

32. All forest rest houses, forest colonies are satisfactorily supplied with water either from streams. List of wells maintained by the department is given in Appendix II.

33. Water from many of the rivers (as stated in para 15) is tapped for irrigation of agricultare fields by constructing irrigation dams across these rivers at suitable places. List of such irrigation dams is also given below:—

LIST OF DAMS IN DINDIGUL FOREST DIVISION.

Serial Number.	*Name of Dam.*	*Purpose.*
(1)	(2)	(3)
1	Dharmathupatti	Irrigation.
2	Kamaraj	Irrigation and drinking water supply to Dindigul.
3	Manjalar	Irrigation.
4	Maruthanathi	Irrigation.
5	Pannapatti	Irrigation.
6	Parapaliar	Irrigation.
7	Palar—Porandalar	Irrigation and drinking water supply to Palani.
8	Varadmanathi	Irrigation.

Section—7—State of the Boundaries.

34. There are 724.2 Km. of external boundrary which needs constant verification and clearing State of boundaries is much disappointing, at many places R. F. stones were focus of altered. in absence of clear demarcated boundaries, the extent of encorachments, which are common, cannot be estimated.

35. The inter-divisional and inter-range boundary is also not kept clear thus creating a confusion for inspecting Officers.

36. The boundaries shall be maintained according to five year programme of checking and maintenance as per prescriptions given under chapter No. IX of Part II relating to misc. prescriptions. While doing so, the rough-stone cairons shall be replaced by concrete pillars. The provision of staff required will be given under relevent chapter.

Section 8—Legal Position.

37. The forests dealt with under this plan fall in two categories ie. Reserved forests and Reserved lands. Reserved forests have been declared so under section 16 of Tamil Nadu Forest Act of 1882. Whereas the Reserved lands have been declared under section 26 of Tamil Nadu Forest Act (1882) and are under process of settlement.

Section 9—Rights and Concessions.

38. The rights admitted in the reserved forests are mainly rights of way to enclosures and temples etc., and diversion of water from stream for drinking or irrigational purposes. List of such rights are given in Appendix IV.

39. *Land Leases* :—There are many land leases granted to various educational/scientific institutions for research purposes. List of such leases is given below:—

Serial number and Organisation Department to whom lease granted. (1)	*Name of the Reserved Forest.* (2)	*Extent.* (3)	*Dated and Government Order Number or Chief Conservator's number.* (4)	*Purposes.* (5)
		HECTARE.		
1 Junior LiasonOfficer Coffee Research Station Dindigul.	Pampukallar Reserved Forest.	11.129	G.O. Ms. No. 2039, Food and Agriculture Department dated 11th June 1960.	For coffee Demonstration and Research.
2 Director of Agriculture , Madras.	Kodavanar Reserved Forest.	6.07	Government Memo. No. 158737;D-II;61-8, Food and Agriculture Department, dated 18th February 1963.	For Establishment Cocoa-Research Station, Kodaikanal.
3 The Commissioner, Panchayat Union, Reddiarchatiram.	Kannivadi Ex-Zamin Forest.	Distance 2½ miles.	District Forest Officers K. Dis. No. 6676;64, dated 19th August 1964.	Formation of Link road from Dharmathpatti to Pandrimalai.
4 Director of Agriculture, Madras.	Pampukallar Reserved Forest and Kodavanar Reserved Forest.	12.141	G.O. Ms. No. 1185, dated 29th March 1967.	For Banana Research Station, Kodaikanal.
5 Executive Engineer, Public Works Department, Parappalar Dam.	Palani Hills Northern slope Reserved Forest.	109.06	G.O. Ms. No. 2030, dated 14th July 1971.	..
6 Varadhamanathi Dam, Public Works Department, Palani.	Ayakudi Ex-Zamin. Forest.	45.87	Chief Conservator's No. D. Dis. 3753/72-12, dated 24th July 1972.	..
7 The Captain and Secretary, Golf-Club, Kodaikanal.	Gundar Valley Reserved Forest and Sengalvarayar Reserved Forest.	53.861	G.O. Ms. No. 2386, Agriculture Department, dated 16th November 1972.	For playing.
8 Palar-Porundalar Dam, Public Works Department, Palani.	Karadikuttu Reserved Forest, Velan Combai Reserved Forest and P.V. Valley Reserved Forest.	51.70	Chief Conservator's No. 16730/73, dated 20th April 1974.	Irrigation.
9 Comprehension Rural Health and Development, Ambilikai.	N.S.R.F.	0.50	Chief Conservator's' No. Dm S1/10452/79, dated 16th December 1979.	Formation of road.
10 The Commissioner, Panchayat Union, Theni.	Valkaradu Reserved Forest.	4.00	Chief Conservator's Ref. No. T2/74377/79-17, dated 2nd June 1981.	Formation of Bye-pass road (Periakulam to) Madurai Road.

CHAPTER II.

The Forests.

Section 1—Composition and Condition of Crop.

40. The forests of Dindigul Division are very rich and varied due to occurance of wide range of Climatic and altitudinal variations. Therefore, all major forest types found in the Peninsular India are met within the Division, Palani hills exhibits a variety of plants ranging from ½ to 4/5 of the flora of whole of the Indian peninsula.

41. The bulk of the forests are of low commercial value falling under Southern Dry Mixed Deciduous Forests and Southern thorn forests. However, following forest types are distinguished in this Division according to the revised classification by Champion and Seth:—

(1) West Coast Semi evergreen forests (2A/C2).

(2) Southern moist mixed deciduous forests (3B/C2).

(3) Tropical Riparian F Ringing Forests (4E/RSI).

(4) Southern Dry mixed Deciduous forests (5A/C3).

(5) Dry Deciduous scrub (5/DSI).

(6) Carnatic Umbrella Thorn Forests (6A/C2).

(7) Southern Euphorbia scrub (6A/C2/DS2).

(8) Southern Sub-Tropical Hill Forests (8A/C1).

42. (1) *West Coast Semi-Evergreen Forest* (*2A/C2*).—This type usually occurs as a transition Zone between dry deciduous and sub-tropical hill forest in a few favourable moist pockets at elevation from 500m and above. It is mainly found in P.V. Valley, Vennilai and Southern slope Reserved Forests and occupy insignificant areas.

43. This type is intermidrary between tropical evergreen and moist deciduous forests with even mixture of both types. However, the species are predominantly evergreen, reaching to height of about 20 metres.

44. The floristics are : —

I. Syzigium cumini, Mangefera, indica, Celtis tetrandra, Machilus macrantha, Dalbergia latifolia, Chukrasia tabularis, Melia dubia and Albizzia odoratissima.

II. Trema Orientallis, Kydia Calycina, Mallotus phillipenenisis, Michelia champaca, Litsea wightiana, Ixora arborea, vitex altissima and Cinnamomum wightii.

III. Eupatorium glanduiosum, Macaranga Peltata,

IV. Clematis species, Jasminum rotteriannum and Asparagus species.

45. (2) *Southern Moist Mixed Deciduous Forests* (*3B/C2*):—This type is also met in the Division in the Sheltered pockets in Agamalai Reserved Forest, Bodi West hills, N.S.R.F. Vennila blocks. The floristics are essentially the same as in deciduous type (described below) but for more evergreen shrubs in ground flora. The area under these forests is quite insignificant.

46. (3) *Tropical Riparian Fringing Forests* (*4E/RSI*) .—This type emerages as a distinc t narrow fringe along water streams with lofty trees, widely spaced, from the surrounding vegetabtion. The soil is well drained but subjected to erosion and flooding. This erosion and redeposition of soil along the river banks, maintain this type of forests. This type is found along Kudirayari Manjalar, Iruttar, Varadamannadi, Palar and Porundalar rivers. The area occupied is very smal

47. The floristics of this type are:—

I. Terminalia arjuna, Syzigium cumini, Mangifera indica, Terminalia ballerica, Bischofia javanica.

II. Pongamia pinata, Strychnos potatorum, Olea glandulifera.

II-A. Bambusa arundinacea (scattered).

III. Vitex negundu, I-pomea species Cleodendron species.

IV. Entada scandens, comberatum latifolium, Dioscorea bulbifera, Hiptage bengalensis.

48. (4) *Southern Dry Mixed Deciduous Forest* (*5A/C3*).—This type occures extensively, throughout the who le tract and accoint for about half of the total a ea of the Disvision. It occupies most of the slopes of lower Palanis. Thorny plants occur and tend to increase in proportion with the heavy grazing. Bamboos are few and scattered, found only on Northern slopes in Palani and Kannivadi Range.

49. The characteristic tree is Anogesisus latifolia invariably associated with Pterocarpus marsupium, climbers are generally few and plenty of grasses occurs.

50. In continuation, this type is met in whole of Palani and Bodi Ranges and most part of Kannivadi Range and has been being exploited for fuel and manure leaves in the past.

51. The principal species found in this type are :—

I/II. Anogeissus latifolia, Pterocarpus marsupium, Acacia leucophloea, Albizzia odoratissima, Albizzia lebbac, Canthium didicum, Cassia fistula, Chloroxylon sweitenia, Dalbergia latifolia (Kudrayar R.F.) Terminalia Chebula, Terminalia ballerica, Santalum album, Strychnos potatorum, Grevia tilieafolia Shorea talura, Tectona grandis (rare) Phyllanthus emblica, Tamarindus indica.

II-A. Bambusa arundinacea (Kudraiyar valley) and Dendrocalamus strictus (NSRF).

III. Carissa carandus, Dodonea viscosa, Zyziphus mouritania, Randia dumentorum, Cassia auriculata, Lantana camara.

IV. Heteropogon contortus, Cymbopogon, Flexuous, Themeda Quadrivularis.

V. Ptertolobium indicum, Acacia indica.

52. (5) *Dry Deciduous Scrub* (*5/DS1*).—These deciduous forest located on lower slopes, near to the villages have been degrated into dry deciduous scrub due to heavy grazing and illicit fellings and loppings. The forests are quite open and stunted with 3—5 m. high forests. Floristics are essentially similar with increase of thorny species and unpalatable grasses. This degraded type is found on outer slopes of Lower Palanis opposite to Virupakshi and Ayakudi villages, Kannivadi slopes and Devaram R. L.

53. (6) *Carnatic Umbrella Thorn Forest* (*6A/C2*).—It is open thorny forests in which Acacia planifrons with its umbrella shaped crown is conspicuous with thickets of other thorny species and few of xerophytic evergreen species. This type occurs in very dry tract with very low rainfall which is received during October—November. This type is common in Ayyalur Range, found in Mungilkaradu, Pillaiyarnatham, Panchantangi, Mudimalai Reserved Forests.

54. The common species found are :—

I/II. Acacia planiferons, Albizzia amara, Azadirachta indica, Canthium dicocum, chloroxylon swieitinea. Acacia leucophloea, Gyrocarpusx jacquini, Atlantia monophyla. Tamarindus indica (scattered) Protium candatum.

III. Acacia latronum, Dichrostachys cinerea, Cassia auriculata, Dodonia viscosa, Randia dumentorum, Cassia Carandus, Euphorbia tirucalli, opuntia species.

IV. Aristida species, Leucas species (near stream).

V. Acacia intsia, Pterolobium indicum.

55. (7) *Southern Euphorbia scrub* (*6A/C2/DS2*).—*Degraded stages* of thron forests are quite common due to heavy grazing pressure and illicit loppings. Mainly, the Euphorbia scrub is found in the most of the areas as compared to thron scrub, eg., Thopsamimalai R. F. Theneer-karadu, Pannamalai, Mankaradu block, Murugamalai R.F., Devarmalai R.F., Sengattampatti R.F., Valkaradu R.F., etc.

56. The floristics of this type are :—

I. Euphorbia tirucalli, caparis species, Acacia latronum, Acacia planiferons.

II. Dodonea viscosa, Opuntia dellinixi, Cassia auriculata, Calotropis procera.

III. Aristida species.

IV. Acacia instia, Petrolobium indicum.

57. (8) *Southern sub-tropical hill forests* (*8A/C*1).—This type is confined to hill slopes generally above 1,200 metres with rainfall between 1,500 to 3,000 mm. This type is met within higher reaches of Amburuvi, Shengalavarayar, Pambar, Kudrayar, P. V. Valley, Olionuthu, N. S. R. F., Siruvatukadu R· F., Kanniankadu, Kadavumalai and Thambirankanal reserved forests and higher reaches of Kotagudi and Bodi North hills. Many of these forests are exploited for cardamom cultivation.

58. These forests are a mixture of the wet-evergreen and temperate forest species, with the former component usually predominating. These forests are also described as stunted rain forests or low sholas. The trees stem and branches are often laiden with mosses and other epiphytes. A dense undergrowth of Sterobilanthes seedlings is frequently present. Syzigium is the characteristics genus associated with members of Laurcacea and Metastomaceae.

The floristics of this type are :—

I. Syzigiyum cuminii, Sarunotianum, Melinsoma wightii, Mallatus albus, Machilus marca-ntha, Elaeocarpus serratus, Sterculia guttata, Symplocox lauriana, Mallotus phylipensis, Acrocarpus fraqinifolus.

II. Cinnamomum wightii, Trema orientalis, Macaranga peltata, Pittosporum floribundum, Milosoma microcarpa, Litsea deceanensis, Veromia monosis, Ixora notoniana, Emblica offici-nallis and Terminalia cehbula (on outer fringes).

III. Strobilanthus species, Fern trees, Eupatorium glandulosum, Clerodendron viscosum, Lobelia exelsa

IV. Desmodium pulchellum, Strobilanthus species.

V. Semilax aspera, Disoscorea bulbifera, Smilax zeylandca.

59. Glossory of local and scientific names of common plants found in the Dindigul Division and List of Local Names to Botanical Names are appended in Appendix No. V and V-A.

Section 2—Injuries to which crop is liable :—

60. The injuries to which the forest crop is susceptible are discussed under the following heads :—

I. Climatic Agency :—

(i) Drought

(ii) Frost

(iii) Wind and Storms.

II. Animal Agency :—

(i) Wild Animals

(ii) Domestic cattle

(iii) Insects.

III. By plants :—

(i) Climbers

(ii) Obnoxious weeds

(iii) Fungi.

IV. Human Agency :—

(i) Fire

(ii) Other injuries.

61. *Drought.*—The daily and seasonal distribution of rainfall is of great importance to forest growth. But this tract experiences severe droughts, frequently. Drought results in heavy mortality in natural forests as well as plantations. The fuel coupes have partially failed to regenerate mainly due to die back of coppice shoots due to drought. Tamarind, Sandal and Eucalyptus hybrid plantations are most effected by drought. Only, species withstanding drought spell is Acacia planifrons, showing some promise in the tract.

62. *Frost.*—Frost is uncommon in the Tract and Damage from frost is absent.

63. *Wind and strom.*—Hot and dry winds sweep the division from June to September, occasionally turning into mild storms. The damage caused by wind is mostly of physiological nature rather than physical. General tree growth and plantations in particular are effected by its dessicating effect. These winds also accelerate the forest fires in their spread particularly in lower palanis.

64. *Wild Animals.*—Elephant is known to cause some damage to teak and bamboo plantations in Palani Range. Bisons and occassionally spotted deer also cause some damage by nibbling young shoots. Silk cotton plantation in Kannivadi Range are said to be damaged by Bison.

65. *Domestic Cattle.*—By far, grazing is number one enemy to the forests of the Division. Excessive and uncontrolled grazing has already effected the coppice regeneration besides causing damage to soil by constant trampling. Almost all the ranges are subjected to heavy grazing except Palani, where grazing is not so serve. The statement shows the average grazing incidence in different ranges. Infact, many cattle also graze without permits.

STATEMENT SHOWING THE AVERAGE (10 YEARS) GRAZING UNIT PER HEC. IN DINDIGUL DIVISION FROM 1972 TO 1982.

Range.	*Average area open to grazing (approximate in hectare).*	*Average number of animals units grazed.*	*Incidence of grazing animal per hectare.*
(1)	(2)	(3)	(4)
Ayyalur	14,128.42 Ha.	6,610	0.41
Bodi	43,935.00 Ha.	9,093	0.21
Kannivadi	16,791.00 Ha.	4,688	0.27
alani	23,844.12 Ha.	5,289	0.22

66. Most affected areas are those which are adjoining to villages. The scattered forests of Ayyalur Range are the worst affected due to all around approach. Apart from the physical damage to young shoots, the palatable grass is almost absent due to selective grazing and only coarse grasses and thorny species like Euphoribia tirucalli, pterolobium indicum and acacia intsia are found everywhere. In short, the quality and productivity of the forests have been worstly ffected rendering major part of forests useless and barren.

67. *Insects.*—Insect damage is quite insignificant. The teak plantations are slightly damaged a leaf skeltinizer (Hapalia macheratoes) as well as leaf defoliator in the division.

68. *Climbers.*—Climbers are most injuries for young coppice shoots in natural forests and in plantation also. Species like Acacia intsia, pterolobium indicum, Zyziphus Oenoplia usually form impenetrable thickets in dry forests and inhibit regeneration of forests. Butea superba and Spatholobus roxburgini. Plantations gridle the teak poles in reducing the vigoursity of trees and causing malformation of bole.

69. Endtada scandens is also met in Riparian fringe forests in Palani Range, interfering with natural tree growth.

70. *Obnoxious weeds.*—At present the most dangerous weed in the forests is Euphorbia tirucalli which is spreading fast. It has invaded almost all fuel forests and if remained unchecked we will have only Euphorbia forests. Others are Lantana camara, Dodonia viscoso, Bauhinia acuminata which also interfere in tree regeneration in these dry forests.

71. *Fungi.*—No significant damage from fungi is in evidence.

72. *Human agency.*—Man, the highly civilised and socialised animal, remain the worst enemy of forests. Man is responsible for most of fires, illicit fellings, poaching and encroachments.

73. *Fire.*—Fires are quite common in Lower Palanis and mostly caused deliberately by graziers to get good new flush of grasses. The effects of fire are most hazardous to forests. Fire kill all natural regeneration on the ground, coppice shoots, bamboo clumps, burning of soil rendering it dry and barren and retard the general growth of forests considerably. Fires also degrade the forest types towards more drier types. Thus reversing the cycle of plant succession. Indirectly, the wild-life is also affected, adversely.

74. The following statements shows the number and causes of forest fires from 1972 to 198 assess the damage done by fires.

STATEMENT SHOWING THE FIRES IN DINDIGUL DIVISION FROM 1971 TO 1982.

Year.	Ayya ur.		Bodinaickanur.		Palan.		Kannivadi.		Reasons or the fire. Cases unknown				Smokers.				Others.				Remark.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area. lur.	Ayya-	Bodi-naicka-nur.	Palani.	K. Vadi.	Ayya-lur.	Bodi-naicka-nur.	Palani	K. Vadi.	Ayya-lur.	Bodi-naicka-nur.	Palani.	K. Vadi.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1971	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
1972	..	..	..	..	7	18.52	6	48.00	..	..	7	6	..	..	..	..	..	..	..	..	
1973	..	..	10	128.00	1	32.00	4	8.00	..	10	1	4	..	..	..	..	..	..	..	..	
1974	..	..	2	16.00	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	
1975	..	..	8	44.80	1	3.20	1	10.00	..	8	1	1	..	..	..	..	..	..	..	..	
1976	..	..	12	202.80	3	50.00	8	53.20	..	12	3	8	..	..	..	..	..	..	..	..	
1977	..	..	9	33.40	1	0.20	2	2.00	..	9	..	1	..	..	..	1	..	..	..	..	Rs. 5,000 fined in Kannivadi Range.
1978	..	..	1	6.00	1	1.60	13	86.40	..	1	1	13	..	..	..	..	..	..	..	..	
1979	..	..	4	20.00	2	14.50	4	38.00	..	4	2	3	..	..	1	..	..	..	..	..	Rs. 5,000 fined in Palani Range.
1980	2	6.20	47	183.00	6	22.25	12	96.40	..	47	6	12	..	..	..	..	..	..	..	..	
1981	..	..	43	367.60	3	12.00	8	30.40	..	42	3	8	..	1	..	..	..	..	..	..	
1982	..	..	..	..	4	85.00	..	..	..	..	3	..	..	..	1	..	..	..	..	..	Accused imprisioned Palani Range.

75. It is observed that present fires are due to unknown causes. It simply proves the lethargy and laziness on part of staff who have not bothered to investigate into the causes zealously and failed to determine the causes of fire. This trend need to be checked, immediately.

76. *Other injuries.*—Illicit fellings and loppings are big menace all over the Division. Much damages is also caused by simplly blazing the stems while passing by.

77. The following statement gives the various number of forest offences detected during the period from 1972-73 to 1981-82.

OFFENCES REPORTED [illegible] FROM 1971-72 TO 1981-1982.

Year.	Ayyalur Range.				Bodi Range.				Kanaivadi Range.				Palani Range				
	Unauthorised felling.	Unauthorised Grazing.	Others.	Total.	Unauthorised felling	Unauthorised Grazing.	Others.	Total.	Unauthorised feeling.	Unauthorised Grazing.	Others.	Total.	Unautorised felling.	Unauthorised Grazing	Others.	Total.	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1972-73	..	..	..	..	466	11	3	480	168	15	1	184	72	2	1	75	..
1972-74	57	26	11	94	552	13	11	606	458	35	31	524	173	3	2	178	..
1974-75	195	24	12	231	437	9	34	480	428	41	18	487	325	10	16	351	..
1975-76	387	32	6	425	460	39	93	592	221	30	27	278	207	13	15	235	..
1976-77	266	5	67	338	370	37	91	498	220	29	18	267	284	1	31	316	..
1977-78	199	31	1	231	265	95	87	447	185	6	23	214	179	2	19	200	..
1978-79	129	25	6	160	517	10	35	562	206	6	12	224	214	4	20	238	..
1979-80	186	37	13	236	668	38	94	800	224	17	10	251	116	..	..	116	..
1980-81	270	57	4	331	655	33	82	770	666	33	6	705	259	19	4	282	..
1981-82	227	2	..	229	598	12	105	715	..	..	..	..	385	7	2	394	..

78. Besides these, encroachment over forest land are very common in the division. Delay in final settlement, no periodical verification of boundaries and carelessness on parts of lower staff are main reason for this type of injury to forests.

Section 3—Fauna.

79. Dindigul forest Division is not very rich in Wildlife, partly because of the proximitysof forests to uman settlements and partly because of very dry and open type of forests met with throughout the whole track. The followings are the principal wild animals inhabitating the forests of the Division.

80. *Primates — Bonnet macaque* (Macaca radiata). —This monkey is commonly seen in whole of the Division. They are seen in trops of 20 25 members feeding on ground or on the trees. They eat anything available like fruits, leaves, shoots, spiders and inseots, etc. They are very social and take good care of their yound ones.

81. *Carnivora —The Panther* (Panthera pardus).—Panther has been reported from Kannivadi and Ayyalur Ranges. The numbers is very small. In Ayyalur Range in 1980, a stray panther attacked District forest Officer Mr. V. R. Chitrapu who lead a party to restore confidence among villages and to retreat the animal into forests. Panther can climb trees unlike tigers and is a very cunning creature. It is known for its dirty habit of eating its kill. Many a times Panthers indulge in cattle lifting.

82. *The Jackal* (Canis Aureus) .— It is quite common animal seen in the Division. They are known as scavangers by their feeding habits since they eat remaining of the carcas left over by other carnivores. Many a times it also kill birds and small animals. They also vegetables and fruits.

83. *The common Mongoose* — (Herpestes edwardsi).—It inhabits open lands, scrub jungle and is found all over the Division. It preys on rats, mice, snakes, lizards, frogs, scorpions and eggs of birds. It breeds through whole year and its gestation period is 60 days.

84. *Rodent —The Indian Porcupine* (Hystrix indica). —This is a biggest rodent, recognised by its squills and occur more or less all over the Division. They are nocturnal in habit and feed on roots and vegetables, etc.,

85. *Lagomorpha* .—Other member found are striped squirrel, rats and mice.

86. *The Indian Hare*. (Lapus nigricollis). —They are found mostly in plains and can be seen running across the roads after sun set.

87. *Reptiles.*—Among snakes, the rat snake (Ptysmucosus) Cobra (Naja Naja) are quite common. Other snake met with are commonkrait (Bengarus Caeruleas) and Russel's viper (Vipara russelli) Indian Monitar (Varanus monitor) is also found in moist areas and is very popular among hillmen.

88. *Ungulates.—The Indian Gaur* (Bas gaurus) : It is also called Bison and is found in Kudiraiyar and P. V. Valley R. F's and in Vennilai and Kaniankadu blocks. It is migrarory animal from Upper Palanis. It feeds mostly on grasses and leaves.

89. *The Wild boar* (Sus scrofa) :—It is found all over the track. Mostly moves in herds of 5-7 members and can easily be observed in the early evenings. It is the most destructive animal to root crops and rhizomes. Boar is perhaps the most couragious among wild animals and generally fights to the end.

90. *The Elephants* .—(Elephas maximus) :—Elephants are be commonly met in P. V. Valley and Kudiraiyar R. F's of Palani Range. They come from adjoining Kukal R. F. from Pollachi Division. Their movements have been noticed along palar, Prundalar, Pochiya and Kudiraiyarrivers.

91. *Fishes.*—Palar Porundalar dam, Parapallar dam and Manjalar dam are quite rich in fish. Many of the fishes are reared by the Fisheries Department. Common fishes reared are Cattlacattla, Rohu, and Mrigal. Besides variety of fishes are found in rivers and streams.

92. *Aves.*—The avifauna of this Division is rich and vanied. Many of the game birds are also found frequently. Peafowl, the National bird, also found in this tract in Alinagaram R. F.

93. The list of commonly seen birds is given below :—

(1) Black Drongo (dicrurus aeneus) Racket tailed drongo இரட்டைவால் குருவி.

(2) Common Myna (Acridotheres tristis.) நாகனவாய்ப்புள.

(3) Jungle Myna (Acridotheres fuscus) காட்டுமைனா.

(4) Jungle crow (Corkus macrorhynchus) அண்டங்காக்காய்.

(5) Common dove (Streptopelia senegalonsis) கள்ளிப்புறா.

(6) Spotted dove (Streptopelia decaocta) மணிப்புறா.

(7) Hoopeo (Upupa epopus) காவல்குருவி.

(8) Night Jar (Caprimulgus indicus) பாதுகை குருவி.

(9) Brahmari kite (Maliaotor indus) கருடன்.

(10) Cuckoo (Koel) (Cuculus micropterus) குயில்.

(11) King fisher (Alcedo eugubris) மீன்கொத்தி.

(12) Munias (Estrilda amundava) நெல்லுக்குருவி.

(13) House Sparrow (Passer domisticus) சிட்டுக்குருவி.

(14) Jungle fawl (Gallus gallus) காட்டுக்கோழி,

(15) Green pigeons (Treron phaenicoptera) பெரியபச்சைப் புறா.

(16) Blue rock pigeon (Columbia eivia) மலைப்புறா,

(17) Peafowl (Pavo cristatus) மயில்.

(18) Grey quail (Coturnix Coturnix) பெரியகாடை,

(19) King vulture (Torgs calvus) பிணந்தின்னிக்கழுகு.

(20) Jungle babbler Turdoides striatus)

(21) Indian Robin (Saxicaloides fulicata) ஊர்க்குருவி.

(22) Parakeets (Psittacula cupatria) பெரியகிளி.

(23) Pied King fisher (Ceryle eugubris) பெரியமீன்கொத்தி.

(24) Paradise fly catcher (Terpsisphone paradisi) ராஜவால்குருவி.

(25) Weaver bird (Ploceus phillipinus) தூக்கணாங்குருவி.

(26) Golden Oriole (Onalus orialus) மாம்பழக்குருவி.

(27) Block checked Oriole (arialus xanthornus) கருப்புத்தலைமஞ்சக்குருவி.

(28) Red Vented bulbul (Pycnonotuscafer intermedius) கொண்டைக்குருவி.

(29) Grey Partridge (Francolinus pictus)

(NOTE.—These birds have been noticed by the author).

93-A. *Tourism spots.*—It is worth mentioning here, the following tourist spots which are enriches with natural surroundings and scenic beaut —

(1) Parapalar (Near Oddanchatram)

(2) Manjalar (Near Ganghuvarpatty)

(3) Kumbakarai (Near Periyakulam)

(4) Thalaikuthi (Near Virupachi)

There may be lot of tourist flow to the above beauty spots from various places if the roads leading to these places, are well maintained and some add itional tourist facilities such as good boarding and conveyance for sight seeing in and around these spots are provided.

CHAPTER III.

Utilisation of the Produce.

Section 1—Agricurture Customs and wants of population.

94. Bulk of the population consists of Hindus followed by Muslims and Christians in order of their numerical strength. The population of the tract is as follows :—

Serial number and name of the taluk.	*Total area of the taluk in hectare.*	*Population.*			*Density of population in Sq.:Km.*
		Male.	*Female.*	*Total.*	
(1)	(2)	(3)	(4)	(5)	(6)
1 Kodaikkanal	98,916.06	42,951	40,428	83,379	84
2 Palani	1,52,247.19	1,89,185	1,85,335	3,74,518	246
3 Dindigul	1,28,246.45	2,90,752	2,84,868	5,75,620	448
4 Vedasandur ..	1,03,237.74	1,13,783	1,13,962	2,27,745	220
5 Nilakottai ..	1,06,308.97	1,89,774	1,87,396	3,77,170	354
6 Uthamapalayam	1,35,007.28	2,44,597	2,38,968	4,83,565	358
7 Periyakulam ..	1,51,447.18	2,23,729	2,18,903	4,42,632	292
Madurai ..	12,26,900.00	22,90,800	22,39,228	45,30,028	358

95. An idea of increase of poulation in last three decades and variation density in the tract can be gained from the following table :—

Serial number and name of the taluk	1951.	1961.	*Per cent of increase during decade.*	1971.		1981.	*Per cent of increase during decade.*	*Detail of population Sq./km.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 Vedasendur ..	..	..	..	208,480	..	227.745	9.2	220.6
2 Dindigul	554 767	602,547	8.61	501,790	..	575,620	14.71	448.83
3 Palani	272,002	288,809	6.17	342,676	..	374,518	9.29	241.12
4 Kodaikanal ..	40,250	50,710	25.90	71,453	40.91	83,379	16.69	84.29
5 Periyakulam ..	584,430	654.303	11.96	373,048	..	442,632	18.65	292.26
6 Uthamapalayan ..	..	..	..	437,017	..	483,565	10,65	358.17
7 Nilakottai ..	277,187	291.006	4.98	337,502	15.98	377,170	11.75	354.78
Total in Madurai district	2,891,817	3,211,227	..	3,938,197	..	4,530,028	15.28	342

96. The following statement showing the per capital forest area in the tract and compara-ve figures for state and India will also be of interest.

Name of the taluk/district state, etc.	Total geograph;cal Area in hacture.	Area under Forest in hactare. Area in	R.F.	R.L.	Percapita of Forest area in hactare.	Percenta of Forest area to total geo-graphical Area.
(1)	(2)	(3)	(4)		(6)	(7)
1 Kodaikanal ..	83,379	61,495.81	..	61,495.81	0.75	62.14
2 Palani	3,74,518	13,811.51	6,704.05	20,515.56	0.05	12.93
3 Dindigul ..	5,75,620	16,362.33	16,263.43	32,625.75	0.05	25.43
4 Vendansandur ..	2,27,745	13,816.35	..	13,816.35	0.06	13.38
5 Nilakottsi ..	3,77,170	11,688.23	..	11,688.23	0.30	10.99
6 Uthamapalayam ..	4,83,565	17,819.18	32,276.00	50,095.18	0.10	37.10
7 Periyakulam ..	4,42,632	8,818,86	38,927.28	47,746.14	0.10	31.52
Madurai district ..	45,30,028	..	..	3,40,800.00	0.75	26.98
Tamil Nadu ..	48,29,456	..	..	21,791,00.00	0.04	16.75
India	68,38,10,051	..	..	747,43,000.00	0.11	22.73
World ..	1,339,00,00,000	..	407,70,00,000	..	30	..

NOTE :—To arrive at these figures total Forest area of each taluk has been taken into account.

97. By and large, agriculture is the primary occupation in the division. Considerable area in the Periyakulam, Palani, Dindigul and Nilakottai taluks are under irrigated cultivation. Well irrigation is also met with throughout the tract. Now a days many people are doing for installation of tube-wells.

98. The chief food crops grown are paddy, cholam, Combu, ragi, varagu, samai, horse-gram and redgrams. The chief crash crops grown are groundnuts, cotton, sugarcane, tobacco and gingely. The main plantation crops grown in lower Palanis are plantain, coffee, cardamom and variety of citrus fruits, whereas in plains mostly grapes. coconut and mango es are grown

99. Many English vegetables are raised in upper Palanis. Potatos have also become very common in upper Palanis and are grown on large extent.

100. The houses are generally of mud and thatch in rural areas whereas the semi-urban and urban localities exhibit large number of pucca houses.

101. The following are the chief requirements of the local population :—

Timber :—Timber is required mainly for house building purposes, making of carts and agricultural implements becuase of secarcity and prohibitive cost of teak, other available jungle woods are used for building purpose e.g. silver oak-Grevalia robusta, Terminalia arjuna-Ptercarpus marsupium, Melia Dulia, Mango, Palmyarah and neem. For agricultural implements number of species are used e.g. Babul (Accacia nilotica) Kudivelan, (Ac. planifrons), usil (Albizzia amara), Porasu (Chloroxylon swietenia) and velvelam (Ac. leucophelea).

102. *Firewood.*—Firewood is in great demand due to the high prices of kerosine oil and increased use of cow dung for manuring fields. Among all Tamarind, Albizzia amara, Act planiferons etc. are main fuel species. These days, wood of Babul (Acacia Arabica) obtainned from tank beds is also much in demand. The rejects from Eucalyptus and Wattle working are becoming common with the population for firewood and are in acute demand.

103. *Bamboos.*—There is an intense demand for bamboos for house building and other purposes which are varied and numerous. With rising price of timber, bamboos have come to stay as poor man's timber. Bamboos are extensively used for basket making and mats. Many depend for their daily wages on this trade.

104. *Grass.*—Thatching grass is in considerable demand throughout the tract for roofing purposes. Fodder grass though required but not much in fashion since people have not yet taken to stable feeding. Grass is also used in rope making.

105. *Grazing.*—Grazing is one of the most outstanding needs of local population. There are very few forest areas that are free from grazing by domestic cattle. Grazing pressure is very heavy in plain forests and on lower palanis. Even goats are being browsed stealthily by local people, though not allowed.

106. *Green leaf manure.*—Green leaves are being used for manuring the fields. But now most of this demand is met from Panchayat forests and poramboke areas. Many people have also started their own green leaves for crops. Obtaining green leaves for manure is being discouraged these days due to its bad effect on the forest growth.

107. *Thorns and Brushwood.*—These are used mostly for fencing purposes mainly thorny species are used e.g. Ac. latronum, Ac. planiferons, Cassia intsia, Euphorbea species (Kalli).

108. *Minor Forest Produce.*—Fruits of mango, Nelli etc. are used for pickle making. Myrobalams are used for tanning skins and hides. Wattle bark and Avaram bark are also used for tanning purposes. The timber of some climbers is also eaten by hill tribes. Various medicinal plants, gums, honey and wax etc., are collected by the local population. Bark of many trees and climbers is used as ropes. The fruits from Rubus species are eaten. Whereas Tamarind fruits are used in food preparation. The leaves of blue gum are also in great demand for distillation of its oil.

109. *Wants of Industry.*—There are three major forest based industries viz.,

(1) Messrs. South India Viscose Co. Ltd., at Sirumugai.

(2) Messrs. Seshashayee Paper and Board Co. Ltd., at Pallipalayam.

(3) Messrs. Tan India (Wattle) extracts Co. Ltd., at Mettupalayam.

These forest based industries located within Tamil Nadu depend on the state forests for meeting their demand of raw materials viz. wood for pulping (bluegum and wattle) and soft wood for match making and wattle bark for extracting tannin.

Section 2—Markets and Marketable Produce.—

110. *A Markets.*—It will be rather best to describe the markets produce-wise.

111. (i) *Timber.*—Forests are poor in timber production. Teak poles are available from thinnings and small teak areas has been felled in Palani range, main markets are Madurai, Dindigul, Theni and Pollachi. In fact, timber is being imported from other divisions and State of Kerala.

112. (ii) *Firewood and Charcoal.*—Apart from local consumption within the tract, the main centres of consumption are Madurai and Dindigul.

113. (iii) *Bamboo.*—All the bamboo available from the division is used locally mainly at palani, Virupakshi and Madurai. Therefore, bamboo from division is not being supplied to paper mill.

114. (iv) *Pulping material'*—The wood of Blue—gum, (E. globulus), Mysoregum (E. grandis) and bottle (A mixmsu) are mainly being Consumed at Sirumugai (Coimbatore) for manufacturing of rayon and stapple fibre. The wood of E. hybrid is being consumed at Pallypalayam for paper making

115. (v) *Tannin material.*—The main consumption of wattle bark is at Mettupalayam for extracts tannin and to some extent it is also consumed at Dindigul. Myrabolans and Avaram bark are mainly consumed at Dindigul.

116. (vi) *Other produce.*—Various items of M.F.P. are consumed locally and at **Palani**, Dindigul and Madurai. Floss obtained from silk cotton is mainly used at Bodinaicknur and Theni. The soft wood available is sent to Sivakasi and Madurai for making match splinters Oil obtained from Eucalyptus Globulus leaves (Eucalyptus oil) is exported to farflung places in e country.

117 *B. Marketable Produce.*—The principle marketable products are Eucalyptus hybrid wood for pulping, polessof teak and other miscellaneous species, firewood, bamboo, eucalyptus leaves and other minor produce.

118. (i) *Pulping material.*—Mysoregum (Eucalyptus grandis) wood yield a fine quality fibre is much in demand for making rayon grade pulp. Whole of the produce is utilised at Sirumugai by Messrs South India Viscose Co. Ltd., Eucalyptus hybrid is being used for paper making by Messrs. Seshasayee Paper and Board Co., Ltd.

119. (ii) *Timber.*—Mainly teak poles obtained from plantations are sold in auctions. Miscellaneous timber like Memecylon indica, Pterocarpus marsupium, Dalbergia latifolia Artocarpus integrifolia, Melia dubia, Terminalia arjuna, Anogeisy latifolia, Acacia nilotica are also available in limited quantity.

120. Soft wood timber like Ailanthus excelsa and Gyrocarpus jacquini are also available The availability of Pinus pistula is quite promising for making match splints. Pinus patula is being tried in Agamalai R. L.

121. (iii) *Firewood.*—Firewood is in great demand throughout the division due to energy crisis and like in petroleum products. Main source of firewood is from fuel coupes in Ayyalur range. Scattered dead, dry and fallen firewood is also sold in auctions.

122. (iv) *Bamboo.*—Bamboo sources of division are quite meagre and can meet only the local demands at Virupatchai and Palani. The bamboo source has dewindled because of contractor working without following any silvicultural rules and neglects on part of executive staff.

123. (v) *Other Minor Produce.*—About 40—50 tonns of Myrobalam are produced and marketed every year. These are the best tannin material among vegetative sources. Avaram and Konnai bark is also used in small quantities for tanning purposes, Kayerleaves (Memecycl n edule) are also available from Ayyalur area. These are used for dyeing cotton and silk. The division also supplies Bothai grass, Tamarind fruits, silk cotton, Cardmoms (from leased ones) Nellikay (Emblica officinalis), Seykay (Acacia concinna), soapnut (sapindus emarginatus), Kilakkay (Carrissa carundus), Honey and wax which are in steady demand.

Section 3—Lines of Export.

124. The forests of this division are well served by a network of roads supplemented by railways for extraction and transport of forest produce from remote areas to centres of consumption.

125. *Railways.*—There are three main railway lines running through the division, facilitating explort of forest produce.—

(1) Madras—Dindigul—Madurai line.

(2) Dindigul—Palani—Pollachi line.

(3) Bodinaickanur—Madurai.

126. In early days, railways were used extensively for transport of firewood from Ayyalur to Madurai. New a days road transport is being prepared on account of economy of time and cost.

127. *Roadways.*—The important roads, maintained by high ways and P.W.D. which are passing through the tract are detailed below :—

(i) Madurai-Dindigul-Trichi road:—It is a national highway road number 45 and most important among all, for transportation of firewood from Ayyalur range.

(ii) Dindigul-Battalagundu-Peryakulam road:—It is also and important road connecting aBodi Range to Dindigul.

(iii) Kodai road-Kodaikanal-Cochin road:— This is most important road running right through the forest in upper and lower Palanis and is main line for export of forest produce.

(iv) Kodaikanal-Palani road:—This is newly formed road and takes of bulk of pulpwood transportation to industries located in Coimbatore districts.

(v) Dindigul—Palani—Pollachi road—This also an important road connecting Palan and Kannivadi range to Dindigul and Pollachi, important consuming centre of forest produce.

128. *Forest Roads.*—There is good network of forest roads in the division which feeding roads to main roads. List of forest roads are given in Appendix No. VI.

129. *Water-Ways.*—No river flowing through the tract is fit for wood transportation, hence transport by water is nil.

HARVEST.

Section 4—Methods of harvest and their cost :

130. Harvesting of the forest produce is carried out (a) departmentally, (b) through the agency of contractors and (e) directly by consumers on fixed rates.

131. *Departmental. working.*—Departmental working is mainly confined to the important forest produce like timber (including thinnings), Bamboo, and selected M.F.P. items. The main reason in favour of departmental working is that it always ensure better silviculture and welfare of future crop.

132. *Harvesting through Agency of Contractors.*—All fuel resources and M.F.P. items are harvested through contractors who buy this right of harvesting in public auctions. The coupes are marked on the ground and put on for public auction as per prescriptions of plans in force.

133. *Harvesting by Consumers.*—Direct harvesting is done by various forest based industries for their own bonafied requirements on the rates fixed by Government.

134. *Cost of Harvesting.*—The current cost for harvesting the various forest produces is given below :

	Rate.	*Unit.*
(1)	(2) RS. P.	(3)
(i) Timber (Teak and Rosewood)—		
(a) Felling & conversion	20.00	Per cu.m.
(b) Extraction to Forest Depots	50.00	Do.
(c) Transport from Forest depots to Sale depots ..	35.00	Do.
(ii) Poles (felling, trimming and stacking)— ..		
Below 45 cm. (girth)	6.50	100
Above 45 cm. (girth)	12.50	100
(iii) Firewood (felling & stacking)—		
2x1x1 Metres	30.00	Per stack
(iv) Bamboos—		
(a) Felling, cleaning stacking:		
(b) Dragging to Forest Depot	Nil.	—
(iv) (a) Eucalyptus Hybrid	35.00	Per tonne
(v) Myrobalans—		
(a) Collection and delivery at	0.40	Per Kg. (for green nuts)
..	0.60	Per Kg. (fo dry rnuts)

	Rate.	Unit.
	(2)	(3)
	RS. P.	
(vi) Silk cotton—		Per unit.
Collection of pods	12.00	1000 (pods)
Transportation to collection depot.	5.00	1000 (pods)
(vii) Honey—		
Collection		
(viii) Tamarind—		
Collection	0.75	Per Kg. (with shell)
Transport	0.20	Per Kg.

Section 5—Past and Current Prices.

13.5. *Timber.*—The prices obtained for teak and other timber extracted during 1980-81 and 1981-82 is given in the following statement:—

TEAK.

Serial number.	Class of Timber.	1981 Average Price/ Cubic Metre.	1982 Average Price/ Cubic Metre.
(1)	(2)	(3)	(4)
Timber.—			
1	AL I	5,462.50	..
2	AL II	5.097.14	..
3	AL III	3,772.00	..
4	AS I	5,510.00	..
5	AS II	4,990.00	..
6	AS III	4,092.00	4,500.00
7	B II	4,400.00	..
8	B III	3,938.00	3,700.00
9	AC III	4,250.00	..
10	SL I	..	4,020.00
11	SL II	..	2,930.00
12	C I	..	3,200.00
13	C II	..	..
14	C III	..	3,586.00
15	S I	..	26.00
16	S III	..	93.50
17	S IV	..	15.00

Poles—			
18	TPL I	..	2,116.66 Per 100 poles
19	TPL II	..	1,210.00 "
20	TPL III	..	320.00 "
21	TPL IV	..	60.00 "
22	TPM I	..	1,250.00 "
23	TPM II	..	1,165.00 "
24	TPM III	..	275.00 "
25	TPM IV	..	50.00 "
26	TPS I	..	755.00 "
27	TPS II	..	356.25 "
28	TPS III	..	170.00
29	TPS IV	..	135.00
Rosewood—			
30	SL I	3,495.00 Per Cubic Metre.	..
31	Class II	4,945.00 "	..
32	Class III	6,534.00 "	..
33	UC	2,333.75 "	..
34	SL II	2,632.50 "	..
35	B II	6,030.00 "	..
Misc Country Wood.—			
36	Pila I	1,330.00	..
37	II	385.00	..
38	Vagai I	840.00	734.00
39	II	486.70	320.00
40	Mango I	431.70	..
41	II	..	230.00
42	Thani I	1,015.00	790.00
43	II	..	640.00
44	Vengai I	2,310.00	..
45	II	1,220.00	..
46	Naval II	..	270.00
47	Malaivembu I	210.00	..

NOTE.—Norms for classification of grading of timber is given in Appendix No. VII.

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136. ***F'i'e wood.***—The following statement gives the average prices obtained for fuel coupes sold in public auction:—

Serial number.	*Name of the Fuel Series.*	1970–71 C. XXII	1971–72 XXIII	1972–73 XXIV	1973–74 XXV	1974–75 XXVI	1975–76 XXVII	1976–77 XXVIII	1977–78 XXIX	1978–79 XXX	1979–80 XXI
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Ayyalur Range.—										
1	A. Kombai	435.00	406.00	1,199.00	915.00	801.00	895.00	1,500.00	880.00	3,361.00	250.00
	Kaluvadimalai	42.00	130.00	200.00	130.00	160.00	135.00	905.00	265.00	1,675.00	1,300.00
3	Mudimalai	553.00	695.00	799.00	960.00	802.00	1,300.00	950.00	1,310.00	1,400.00	1,415.00
4	Moongilkaradu	401.00	501.00	525.00	565.00	369.00	600.00	275.00	200.00	1,000.00	1,799.00
5	Panjanthangki	376.00	369.00	1,249.00	1,249.00	1,999.00	750.00	520.00	..	164.00	345.00
6	Sorimalai	402.00	721.00	699.00	490.00	499.00	900.00	1,150.00	555.00	1,600.00	1,505.00
7	Sendurai	190.00	191.00	601.00	500.00	649.00	405.00	430.00	430.00	550.00	765.00
8	Pillaiyarnatham North	520.00	565.00	1,000.00	950.00	1,744.00	1,460.00	925.00	1,455.00	2,551.00	1,500.00
9	Pillaiyarnatham South	311.00	301.00	1,300.00	1,000.00	1,351.00	740.00	595.00	..	666.00	755.00
10	Thoppasami malai South	139.00	201.00	460.00	255.00			No further sales.			
	Arrear	56.00	..	..	..						
11	Thoppasami malai Central	XXI	91.00	97.00	..	Sale dropped in Conservator's No. 30814/82 L. dated. 18–9–1973.					
12	Thoppasami malai North	..	..	No sales		..	..	..	..	..	:
13	Pannamalai	..	..	No sales		..	..	..	..	..	..
	Bodi Range—										
1	Amburuvi	150.00	101.00	201.00	71.00	71.00	..	140.00	130.00	485.00	
2	Iruttar	285.00	141.00	120.00	..	..	..	360.00	805.00	..	
3	Pambar	150.00	151.00	76.00	..	..	136.00	415.00	230.00	750.00	
	Kannivadi Range—										
1	Chatrapatti F.C.	145.00	176.00	1,015.00	1,405.00	1,311.00	555.00	820.00	1,300.00	..	
2	Virupakshi south	98.00	810.00	1,000.00	602.00	..	..	..	..	..	
3	Ayyampalayam combai	250.00	251.00	118.00	..	..	..	..	..	..	
4	Solathu combai	50.00	..	..	..	..	..	..	..	..	
5	Peria combai	87.00	..	..	..	..	..	..	..	..	
6	Karuveppilai Odai	..	454.00	..	1,115.00	3,999.00	1,200.00	..	..	..	
	Arrear	50,00	5,000.00								

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Specia Copues										
7	N.S.R.F. Specia coupe Bit I and II.		..	520.00	..	..	..	..	..	..	
8	N.S.R F. Bit II		..	529 00	..	..	..	..	..	..	
9	N.S.R.F. Bit III		..	337.00	..	..	..	..	..	..	
P	Palani Range :										
1	Kudiraiyar		575.00	1,251.00	1,400.00	,520.00	5,106.00	3,005.00	5,580.00	2,655.00	
2	Olianuthu		36.00	30.00	211.00	1,20.00	..	..	..	..	
3	Palani		150.0.	100.00	603.00	815.00	II	III	IV	V	
(	Vatadamanthi special coupe Ayakudi Zamin.		..	..	..	..	1,500.00	1,005.00	4,340.00	4,960.0	
5	RettiyambadM za nin.		..	.	..	..	900.00	r99.00	1,165.00	1,275.00	

137. The statement given shows the fluctuations of Average prices for last three decades clear that prices have been increasing steadily.

138. *Average price fetched per ha. in fuel coupe for last a decsdes.—*

Serial number.	Name of the series.	From 1946–47 to 1958–59.	From 1959–60 to 1969–70.	From 1970–71 to 1979–80.
(1)	(2)	(3)	(4)	(5)
		RS. P.	RS. P.	RS. P.
	I. Ayyalur Range.			
1	A. Kombai	162.34	508.04	1061.20
2	Kaluvadiamalai	77.37	254.39	494.20
3	Mudimalai	129.85	344.54	1,018.40
4	Moongilkaradu	227.70	311.23	623.50
5	Panjanthangi	144.31	410.82	780.11
6	Sorimala	269.34	345.25	852.10
7	Sendurai	80.31	295.00	471.10
8	Pillaiyarnatham North	111.49	423.03	1,267.00
9	Pillaiyarnatham South	103.78	327.22	779.89
10	Thoppasamaimalai South	68.77	168.90	222.20
11	Thoppasamimalai Central	122.31	179.71	94.00
12	Thoppasamimalai North	76.60	97.86	No sale.
13	Pannamalai	374.65	42.30	No sale.
	II. Bodi Range			
1	Ayamalai	89.94	21.02	..
2	Amburavi	275.27	113.55	168.63
3	Iruttar	197.68	145,98	342.20
4	Pambar	312.83	252.62	272.57
5	Adukkam	226.78	248.82	..
6	Murugamalai	107.41	113.11	..
7	Ayyampalayam	..	422.38	..
8	Kottagudi	580.7	..	..
	III. Kannivadi Range			
1	Achi Combai	77.91	166.34	..
2	Chatrapatti	129.60	388.95	840.88
3	Virupakshi	80.60	704.53	627.50
4	Ayyampalayam Combai	..	..	206'33
5	Solathy Combai	..	..	50.00
6	Periabombai	..	..	87.00
7	Karuveppilai Odai	..	..	2352.60
8	Virupakshi	144.85	210,40	..
	IV Palani Range.			
7	Ayyampalayam	..	422.38	..
1	Kudirayar	146,16	640.00	2636.50
2	Oliyathu Odai	193.97	295.56	349.25
3	Palani	72.72	174.49	417.00
4	Varadomanthi	..	..	2956.25
5	Rettaiyampadi	..	..	1034.75

139. Above statement clearly shows that prices have almost doubled up in each next decade

140. *Bamboo.*—The prices obtained for bamboo coupes sold in auctions are given below:—

Year.	*Range.*	*Numnber of coupes sold.*	*Revenue realised.*
			Rs. P.
(1)	(2)	(3)	(4)
1974–75	Kannivadi Range ..	Virupakshi III :	8,000.00
1975–76	Do.	Virupakshi I	8,042.00
1976–77	Do.	Virupakshi II	17,105.00
1977–78	Do.	Virupakshi III	6,210.00
1978–79	Do·	Virupakshi I	10,707.00
1979–80	Do.	Virupakshi II	13,515.00

141. *Silk Cotton.*—Silk cotton has been harvested departmentaly for the first time during 1980–81. The prices obtained are given below :—

Year.	*Prices obtained.*
1980	Rs. 75 per 1,000 Capsules.
1981	Rs. 90 per 1,000 capsules.

142. *Minor forest produce.*—A detailed statement of various M·F·P. units sold and prices obtained are given in Appendix No. VIII.However, the following statement gives the yearly price fetched and revenue realised for the whole divisions :—

Serial number.	*Year.*	*Tamarind.*	*Bothai grass.*	*Kadukkai.*	*Avaram and konnai bark.*	*Other Minor Forest produce.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	1970–71	3,766.00	20,817.00	2,731.00	165.00	6,511.00	33,990.00
2	1971–72	3,340.00	9,551.00	..	120.00	10,053.00	22,064.00
3	1972–73	4,721.00	24,203.00	5,903.00	401.00	8,455.00	43,683.00
4	1973–74	9,230.00	29,981.00	..	125.00	12,455.00	51,791.00
5	1974–75	29,436.00	87,710.00	16,001.00	..	17,875.00	151,022.00
6	1975–76	17,806.00	2,600.00	..	..	22,530.00	42,936.00
7	1976–77	13,275.00	30,490.00	27,000.00	..	28,865.00	99,630.00
8	1977–78	21,310.00	26,800.00	..	..	19,688.00	67,798.00
9	1978–79	19,710.00	43,400.00	60,110.00	..	51,500.00	1,74,720.00
10	1979–80	31,382.00	54,435.00	..	..	43,805.00	1,29 622.00
11	1980-81	88,282.25	2,51,870.00	79,310.00	..	57,825.00	4,77287.25
	Total ..	2,10,876.25	5,80,857.00	1,91,055.00	811.00	2,79,562.00	12,94,543.25
	Average for 11 years.	1,970.57	52,805.18	17,368.64	73.73	25,414.73	1,17,685.74

143. *Eucalyptus hybrid:*—The prices for Eucalyptus hybrid are fixed by Government directly as below :—

Up to 1980—Rs. 80 per tonne.

After 1980 till date—Rs. 100 per tonne.

CHAPTER IV.

Staff and Labour supply.

Section I—Staff.

144. The charge of the Division is held by a Deputy Consevator of Forests, Administering all forests covered under this plan. As aleready given in Chapter I, the forest dealt with under the plan are distributed in five ranges. each under the charge of Forest Ranger. Each Range is further divided into two to three section each in the charge of Forester. These section, in turn divided into a number of Forest beats under the charge of Forest-Guard who is assited by Forest Watcher.

145. The following statement shows the present territorial set up of the Divisions :

Serial number.	*Range.*	*Section.*	*Number of Forest beats.*
(1)	(2)	(3)	(4)
1	Palani Range	(1) Palani	1. Balasamudram East. 2. Balasamudram West. 3. Ayakudi. 4. Kombai patti. 5. Melpallam. 6. Perumpallam. 7. Vadakavunfi.
		(2) Pappampatty ..	1. Kalayam Puthur 2. Kavalapatty 3. Andipatty East. 4. Andipatty West. 5. Periammapatti.
2	Ayyalur Range.	(1) Ayyalur	1. Ayyalur. 2. Malayapatti. 3. R Combai. 4. Pillaiyarnatham. 5. Senthurai.
		(2) Vedasanthur	1. Puthur 2. Pannamalai. 3. Devinaikanpatty. 4. Idayakottai.
3	Kannivadi Range	(1) Virupakshi	1. Chatrapatty. 2. Oddanchatram. 3. Virupakshi. 4. Pachalur. 5. Peraiyur. 6. Kottanalli.
		(2) Kannivadi	1. Kannivadi. 2. Arasamarathupatty. 3. Sithiyankottai. 4. Ayyampalayam. 5. Sengattampatty.

(1)	(2)	(3)	(4)
4	Bodinaickanur Range ..	(1) Periyakulam. ..	1. Pambar West 2. Pambar East. 3. Adukkam. 4. Amburuvi. 5. Devadanapatty. 6. Murugamalai.
		(2) Theni	1. Agamalai. 2. Muthukombai. 3. Vattar. 4. Theni.
		3. Bodinaickanur.	1. Arugulam. 2. PeriyathuCombai. 3. Othamparai. 4. Pitchangarai. 5. Kottakudi
		(4) Thevaram ..	1. Kalugumalai. 2. Rasingapurami. 3. Thevaram. 4. Soolapuram.

146. In addition to the territorial staff referred above, there is Ministerial staff and some special duty staff, assisting the District Forest Officer. The following list shows the permanent and temporary staff as on 1st April 1982.

TABLE.

SANCTIONED STRENGTH OF DINDIGUL DIVISION AS ON 1ST APRIL 1982.

Serial number and Category.	*Perman-ent.*	*Tempor-ary.*	*Total.*	*Scale of pay.*
(1)	(2)	(3)	(4)	(5) Rs.
Excutive Staff :				
1 Dist. Forest Officer (Dy. conservator of Forests).	1	..	1	1,150-70-1,850.
2 Asst. Conservator of Forests. ..	1	..	1	750-50-1,350.
3 Forest Rangers ..	8	3	11	600-30-750-35-890-40-1,050.
4 Jr. Engineer	..	2	2	..
5 Foresters	25	17	42	400-15-490-20-650-25-700.
6 Forest Guards	95	10	105	280-5-320-10-450
7 Forest Watchers ..	80	..	80	250-5-330-10-400.
			242	

Ministerial Staff :

1 Superintendent	1	..	1	525-25-675-30-855-35-925.
2 Assistants	5	..	6	400-15-490-20-650-25-700.
3 Jr. Assistants	14	5	19	350-10-420-15-600.
4 Typist	1	3	4	350-10-420-15-600.
5 Steno typist	1	..	1	350-10-420-15-600.
6 Draughtsman Gr. II ..	1	1	2	450-20-590-25-740-30-800.
7 Draughtsman Gr. III ..		1	2	400-15-490-20-650-25-700.
8 Tracer	..	1	1	325-10-445-15-550.
9 Tally Clerk	..	4	4	280-5-320-10-450.
10 Jeep Driver	2	..	2	310-10-470-15-500.
11 Lorry Driver	1	..	1	310-10-470-15-500.
12 Lorry Cleaner	1	..	1	250-5-330-10-400
	Sub-total ..		44	

Last Grade Government Servants :

1 Basic Servants	13	5	18	250-5-330-10-400
2 Watchman	1	1	2	250-5-330-10-400
			20	
	Grand total ..		306	

147. The details of permanent Establishment sanctioned in G. O.'s is appended in appendix No. IX.

Section 2—Labour Supply.

148. For various forestry works, the Division has to depend on the Villages adjeining Reserved Forests in plains and hill villages in upper Palanis. Labour is, generally, not difficult to obtain except during agricultural season when the villagers are busy with their cultivation. Partial scarcirty of Labour supply is felt on many a times due to competition for better wages, available in other departments and private agencies.

149. Private and Company contractors recruit labour locally as well as import from other areas to cope up with their work. Due to the location of hill villages at far flung places, the villagers have to march a long distances to reach the workspots.

150. The following are the current rates of daily wages as compared to previous 5 years :—

	Adult.			Special Track.		
Year.	*Class I.*	*Class II.*	*Non-Adult.*	*Class I.*	*Class II.*	*Non-Adult.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1978-79 ..	5.00	3.00	2.75	6.00	3.00	2.75
1979-80 ..	5.00	3.50	2.75	6.00	3.50	2.75
1980-81 ..	6.00	4.00	4.00	8.00	..	5.00
1981-82 ..	6.00	4.00	4.00	8.00	..	5.00
1982-83 ..	7.00	5.00	4.00	..	..	..

Section 3—Hill Tribes.

151. The only hill tribes found in the Division is Palyars. The Palyars are very backward class who reside in small sacttered parties amid the jungles of upper and Lower Palanis. They dwell in grass huts or caves, ‹ btain eating beef and live upon roots, yam and honey. They cook the roots, etc., by putting them in a pit heaping some firewood over it and setting fire to the fre-wood. The fire is usually kept burning all night so asto keep away the wild beasts. They are very shy and avoid other people. They can make fire with quartz and steel using the floss of silk cotton as tinder.

152. Marriages are arranged by elders of the family. Marriage between a man nd his maternal uncle's daughter or sister's daughter is permitted. Widow remarriage is also allowed among them. Their main occupation is collection of honey and other Minor produce from forests. But now a days they have also started working as Agricultural labourers.

Setction 4—Amelioration of Hill tribes.

153. Though the Government has taken many measures to look after their health and education yet their condition is deplorable. This is mainly because of lack of interest among Palyars themselves compled with their scattered way of living. Forest Department has also constructed a School and a Hospital at Berijam to cattar to the needs of local population. Yet, much needs to be done to educate them and help to raise their general standard of living.

CHAPTER V.

PAST SYSTEMS OF MANAGEMENT.

Section—1. General history of the Forests.

154. The Division as constituted at present, have undergone various developments–political, managerial and administrative. For comprehensive and exhaustive understanding, the history of the forests of this Division is being described under the following headings.

155. *Pre-british period.*—This period has witnessed political upheavals in plenty, among the native rulers and chieftains. However Pandyan rule was well established since beginning of Christian era till 1326, when Muslim rulers took over and inturn were replaced by Vijayanagar Kingdom in 1378. Then Nayaka Kingdom came into Existence some where in 1529 and ruled the Country till 1736, when Navabs of Carnatic started interfering in Madurai country.

156. Available information does not throw any light about forests during this period. This can be attributed to lack of knowledge of Utilisation of forest produces, the easy availablity of fuelwood, etc. from patta lands and to some extent the meager demands for forest produce that time due to very low population. However, Sangam literature and other literary works do at mention about forests and its relation to the development of society. Mostly the Rishies and sadhus went to forests for meditation whereas the local rulers used to go to forests for hunting and game. Forests were actually regarded important from fighting strategies, since many of the Foresters were built amidst the forests and defeated Kings used to fled to forests for protection.

157. *British period.*—Many important events took place during this period, towards the management and administration of forests. During this period, Dindigul was formally caded to British by the treaty of 1792, and Madurai came under British in 1801 from rule of Navabs of Carnatic. However, no efforts were made to conserve the valuable forests till 1852, when the felling of trees were regulated through licence, free of cost, to be issued by revenue authorities. This resulted in depletion of forest due to wholesale cutting of wood and export to neighbouring districts. The only revenue, derived from forest leases of jungle produce was also foregone in 1854, when the leases were abolished.

158. However, in 1856 a beginning was made towards forest conservancy by forbidding the shifting cultivation practised on the Palanis for growing plantations. To enforce forest conservancy rigidly, a forest overseer was appointed for important forests in 1860.

159. But large areas continued to be under the management of Revenue Department. The dual control did not succeed hence, a Sub-Assistant-Conservator was appointed in 1865.

160. *Birth of Forest Department.*—The extension of South Indian Railway through the District led to an increased interest in forests, resulting in appointment of District Forest Officer in 1869, in the rank of Deputy Conservator.

161. In 1871 a Forest establishment was sanctioned and Madurai Forest Division was constituted consisting of two ranges, the Madurai Range including the Sirumalais, the Perumalais, the Alagar hills, the Nedumalais, the Natham and the Ayyalur hills and the Periakulam Range covering the Upper Palani, Lower Palanis and forests of Cumbum Valley.

162. In 1880, on recommendation of a committee consisting of Collector, Deputy Conservator on special duty and the Deputy Conservator of the District, 21 Forest blocks measuring 285 sq. miles were selected for reservation. In 1882 the Madras Forest Act was passed in to law and by 1890 most of the forests were demarcated, settled and notified as "Reserved Fosests." And nearly all of them were mapped by the Survey of India between 1881 and 1894.

163. By the end of 1893, the District was reorganised into five Ranges, viz., Cumbum, Kodaikanal, Thandigudi, Palamedu and Kanavoipatti. In 1904, the Headquarters of Kanavoipatti Range was transferred from Kanavoipatti to Natham. In 1914 the Kodaikanal and Thandigudi Ranges was reconstituted and headquarters of latter was shifted to Palani.

164. In 1916, Ayyalur, Sholavandan and Natham Ranges were carvied out from the Kanarvoipatti and Palamedu Ranges, when the District consisted of following six Ranges :—

(1) Ayyalur

(2) Cumbum

(3) Kodaikanal

(4) Natham

(5) Palani

(6) Sholavandan

165. In the year 1935, whole of Manjampatti reserve and part of Kudiriyar reserve were transferred to Coimbatore (South) Division.

166. Meanwhile the year 1900 saw the ushering of Forest working Plan era when the first efforts were made to brings these forests under ystematic and scientific working. The first working Plan for forests of two ranges viz., Palamedu and Kanavoipatti was prepared by Mr. Porter in the some year.

167. *Birth of Man made Forests.*—When the major organisational changes were taking place in the District, forests tried their luck to regenerate the forests by artificial means to increase the commercial value of these forests and the efforts were met with smiling success.

168. In 1869-70 Colonel Campbell Walker started planting of teak plantations at Velancombai at the Northern foot of Palanis and at Vannathiparai near the foot of ghat below Periyar lake.

169. Eucalyptus globulus was introduced in Upper Palanis in 1887-88 in Gundanshola reserve.

170. In 1883-84 Wattle plantation consisting of mainly Acacia Dealbata was raised near Poombarai Village.

171. Pines were introduced in Upper Palanis (Gundar Valley Extension R.F.) in 1906 by Mr. M. B. Bryant. About 32 species were tried but Pinus insignis proved to be successful among all. Mr. J. S. Scot tried to introduce some of the Himalayan species in 1916 but the sample plot failed due to fire of 1918. In 1920, a disastrous fire destroyed the bulk of Pine plantations (500 acres) and continued to burn for three days. Financial loss was assessed at Rs. 8,000 exclusive supervision, etc.

172. To conclude, during this period only the forests of District were brought under effective control of Government and sound management based on silviculture principles, practised.

173. *Post Independance period.*—This period saw further intensification of forest management to meet the national goals and efforts to reserve all the forest areas into reserved forests.

174. All the estate forest, about 500 sq. miles acquired under the Estate Abolition Act of 1947 were placed under the management of Forest Department. Due to addition of this large area to the existing forest Division, it was bifurcated into two forest Divisions in the District named Madurai West and Madurai East as per the G. O. Ms. No. 1416, Development, dated 2nd June, 1951. Both Divisions had their headquarters at Madurai.

175. Madurai West Division as existed then, consisted of five Ranges viz., Cumbum, Bodinaickanur, Kodaikanal, Palani and Plantation Range since Ayyalur Range was transferred to newly formed Tiruchirappalli Division in 1949 for its better management.

176. Various Panchayat forests were also reverted the Forest Department as stated below :—

(1) Perumalkoil Karadu.

(2) Valkaradu.

(3) Sengattampatti.

(4) Karumalai.

(5) Vandamalai, and

(6) Rangamalai.

177. In 1954, Ayyalur Range with portions lying within Madurai revenue district alone was retransferred to Madurai West Division on administrative reasons.

178. Again in 1957, on account of the State reorganisation, the forest Divisions were also reorganised and Madurai West Division was renamed as Madurai North Division with headquarters at Kodaikanal and attached with Coimbatore circle as per G.O. Ms. No. 2987 Food and Agricultural, dated 21st December 1956. The Cumbum Range of erstwhile Madurai West Division was added on to newly formed Madurai South Division. At same time Ramanathapuram forest Division was formed with headquarters at Karaikudi to administrate all the forest of Ramanathapuram district.

179. In 1959, Madurai North Division was retransferred to Madurai Circle on administrative grounds and headquarters shifted to Dindigul as per G.O. Ms. No. 3252, Food and Agriculture dated 12th October, 1959.

180. With sanction of new Range namely Kannivadi in G.O. Ms. No. 3855, Food and Agriculture, dated 10th November 1961, the Madurai North Division comprised of following six Ranges:—

(1) Ayyalur.

(2) Kodaikanal.

(3) Kannivadi.

(4) Palani.

(5) Plantation.

(6) Bodinaickanur.

181. During 1963, Plantation Range was placed under charge of Asst. Conservator of Forests, headquarters at Kodiakanal, after dividing into three units, each under one Range. Till then this Range was under charge of Ranger assisted by two Assistant Rangers.

182. Subsequently these units were raised to the status of forest ranges namely Berijams Poomparai and Vandaravu for better protection of area. AWith this change, the present Madurai North Division as constituted now consists of following eight territorial ranges with head quarters in brackets:—

(1) Ayyalur.
(2) Bodinaickanur (Theni).
(3) Kannivadi (Odanchatram).
(4) Kodaikanal.
(5) Berijam.
(6) Poomparai.
(7) Palani.
(8) Vandravu (Kodaikanal).

183. The list given below, of officers who have held the charge of Madurai Forests and subsequently of Madurai North forests may also be of some interest:—

Serial number and name.	*Designation.*	*Period.*
(1)	(2)	(3)
1 E. Sperschnier	Overseer of Madurai Forests ..	April 1860 to 27th March 1865.
2 T. N. Turnbull	Sub-Assistant Conservator ..	28th March 1865 to 4th April 1868
3 Leiht Fullerton	District Forest Officer	June 1868 to 4th March 1869.
4 Lt. I. Campbell Walker ..	Do. ..	14th May 1869 to 14th April 1871.
5 K. Williams	Do. ..	8th June 1871 to 25th April 1875.
6 J. H. B. Brongham	Do. ..	26th April 1875 to 9th June 1878.
7 H. A. Gass	Do. ..	10th June 1878 to 30th May 1882.
8 F. E. Robbinson	Assistant Collector	31st May 1882 to 24th August 1983.
9 H. A. Gass	District Forest Officer	25th August 1883 to 16th November 1893. (with frequent intrupt.

Serial number and name. (1)	*Designation.* (2)	*Period.* (3)
10 T. P. Peake	District Forest Officer	.. 17th November 1893 to 19th October 1897.
11 H. J. A. Porter	Do.	.. 20th November 1897 to 29th January 1902.
12 H. B. Bryent	Do.	.. 30th Janury 1902 to 16th February 1913 (with small intruptions).
13 J. S. Scot	Do.	.. 17th February 1913 to 12th Novembe r 1915.
14 A. B. Jackson	Do.	.. 13th November 1915 to 15th May 1919.
15 S. V. Devadasan	Extra Assistant Conservator	16th May 1919 to 21st October 1920.
16 K. A. Chengappa	Do.	.. 11th October 1920 to 9th October 1923.
17 H. R. M. Law	District Forest Officer ..	.. 10th October 1923 to 28th January 1925.
18 D. F. Stileman	Do.	.. 29th January 1925 to 7th December 1927.
19 J. A. Master	Do.	.. 8th December 1929 to 17th December 1929.
20 D. F.	Do.	.. 11th July 1928 to 17th February 1929.
21 J. A. Master	Do.	18th February 1929 to 21st June 1931.
22 W. C. Hart	Extra Assistant Conservator	22nd June 1931 to 14th July 1923.
23 B. Janakuram Singh.. ..	District Forest Officer ..	.. 15th July 1932 to 22nd March 1933.
24 J. H. Lingering	Do.	23rd March 1933 to 14th Octobe 1933.
25 P. W. F. Walepole	Do.	.. 2nd April 1934 to 30th April 1936
26 C. R. F. Williams	Do.	.. 1st May 1936 to 12th April 1938.
27 Amir Padshah Sahib Bahadur ..	Do. ..	.. 13th April 1938 to 12th June 1938.
28 R. B. Combell	Do. ..	.. 14th June 1938 to 25th July 1940.
29 Amir Padshah Sahib Bahadur ..	Do.	.. 26th July 1940 to 12th August 1940.
30 Avdul Kasim Sahib	Do.	.. 13th April 1940 to 4th July 1941.
31 D. McD. Currie	Do.	.. 5th July 1941 to 21st March 1942.
32 Amir Padhah Bahadur Sahib	Do.	.. 22nd March 1942 to 27th April 1942.
33 D. McD. Currie	Do.	.. 28th April 1942 to 4th April 1943.
34 S. S. K. Basu	Do.	.. 5th April 1943 to 23rd April 1943.
35 H. F. Mac Bride	Do.	.. 24th April 1943 to 10th May 1943.
36 S. K. Basu	Do.	.. 11th May 1943 to 6th August 1943.
37 D. Mc. D. Currie	Do.	.. 7th August 1943 to 27th August 1943.
38 S. K. Basu	Do.	.. 28th August 1943 to 13th January 1944.
39 D. Mc. D. Currie	Do.	.. 14th January 1944 to 14th February 1944.
40 S. K. Basu	Do.	.. 15th February 1944 to 16th July 1945.
41 V. S. Krishnasamy	Do.	.. 17th July 1945 to 17th September 1945.
42 S. K. Basu	Do.	.. 18th September 1945 to 29th July 1946.

Serial number and name.	*Designation.*	*Period.*
(1)	(2)	(3)
43 V. S. Krishnasamy	District Forest Officer ..	30th July 1946 to 6th November 1948.
44 S. A. Rahmatullah	Do. ..	7th November 1948 to 29th June 1950.
45 C. A. R. Bhadran	Do. ..	30th June 1950 to 18th July 1953
46 T. Jejadev	Do. ..	19th July 1953 to 3rd December 1954.
47 T. Achaya	Do. ..	4th December 1954 to 2nd May 1955.
48 M. Thyagarajan	Do. ..	3rd May 1955 to 31st July 1955.
49 T. Achaya	Do. ..	1st August 1955 to 7th June 1956.
50 A. M. Tholamani Devar	Do. ..	8th June 1955 to 14th September 1956.
51 K. A. Bhoja Shetty	Do. ..	15th September 1956 to 17th September 1956.
52 A. M. Tholamani Devar ..	Do. ..	18th September 1956 to 28th September 1956.
53 B. M. Boppaya	Do. ..	29th September 1956 to 30th October 1956.
54 Ebenesor Jacob	Do. ..	1st November 1956 to 4th August 1958.
55 A. M. Tholamani Devar ..	Do. ..	5th August 1958 to 6th July 1960.
56 K. Durairaj, I.F.S.	Do. ..	7th July 1960 to 16th October 1961.
57 S. Sivasailam, I.F.S. ..	Do.	17th October 1961 to 23rd June 1962.
58 V. M. Narashiman, I.F.S. ..	Do. ..	26th June 1962 to 27th November 1964.
59 C. Pavitram, I.F.S. (Madurai South Division).	Do.	In additional Charge from 28th November 1964 to 9th April 1965 f.n.
60 V. M. Narasimhan, I.F.S. ..	Do. ..	10th April 1965 to 7th May 1966.
61 A. Olimuthu	Do. ..	8th May 1966 to 6th September 1968.
62 H. J. Wilson, I.F.S., ...	Do. ..	7th September 1968 to 18th Augus 1969.
63 K. R. Venkatesan, I.F.S. ..	Do. ..	19th August 1969 to 14th June 1971
64 Thirumalairaj, I.F.S., ...	Do. ..	15th June 1971 to 30th June 1972.
65 K. Chelliah, I.F.S.	Do. ..	1st July 1972 to 1st August 1972.
66 T. K. Rajagopalan, I.F.S. ..	Do. ..	2nd August 1972 to 20th November 1972.
67 M. S. Karunakaran, I.F.S. ..	Do. ..	21st November 1972 to 20th December 1972.
68 T. K. Rajagopalan, I.F.S. ..	Do. ..	21st December 1972 to 28th May 1975.
69 K. Chelliah, I.F.S.	Do. ..	29th May 1975 to 22nd March 1977.
70 J. Wilson, I.F.S.	Do. ..	23rd March 1977 to 16th December 1977.
71 M. S. Karunakaran, I.F.S. ..	Do. ..	17th December 1977 to 3rd May 1979.
72 S. M. A. Aslam, I.F.S., Conservator of Forests, Madurai Circle Additional charge.	Do. ..	4th May 1979 to 15th May 1979.
73 V. R. Chittrappu, I.F.S. ..	Do. ..	16th May 1979 to 2nd June 1979.
74 A. K. Ramachandran, I.F.S. ..	Do. ..	3rd June 1979 to 14th June 1979

75 V. R. Chittrappu, I.F.S. ..	District Forest Officer	..	15th June 1979 to 1st November 1980.
76 K. S. Dehal, I.F.S.	Do.	..	2nd November 1980 to 1st January 1981.
77 V. R. Chittrappu, I.F.S. ..	Do.	..	2nd January 1981 to 16th March 1981.
78 K. S. Dehal, I.F.S.	Do.	..	17th March 1981 to 7th July 1981.
79 K. C. Duraisamy, I.F.S. ..	Do.	..	8th July 1981 to till date.

Section 2—Past System of Management.

184. *Pre-Planning Period.*—This has reference to the period prior to the year 1900, during which no systematic attempt was made, whatsoever to work the forests of the Division. In fact, the forests were managed under certain loose set of guidelines which did not serve the purpose of preservation and working of these forests on sustained yield. Contrarily the forests were open to everybody for exploitation and whatever, departmental working was done it was without any set goals and objectives. This dark period of uncertainities ended in 1900 with Mr. Porter' working schme, coming into force.

185. However, it is quite significant and satisfying that many local and exotic species were introduced during this period by artificial planting, viz—

(*a*) Teak planting in Velancombai area was started by Col. compbell Walker in 1869-70.

(*b*) Eucalyptus globulus was introduced in Gundanshola in 1887-88 for supply of fuel to Kodaikanal.

(*c*) Wattle plantations were raised probably in 1883-84 near Poombarai.

186. *Semi-Planning Period.*—During this period many isolated schmes for different areas were prepared for managing these forests on more systematic lines. It is praiseworthy to note that genuine requirements of people and aspect of future development of forests were also taken into consideration while formulating these schemes.

187. This period began with ushering of Mr. Porter's Plan in 1900 for Palamedu and Kanavoipatti Ranges of the then compasite Madurai Division. The main object of the plan was to supply fuel, small timber, manure leaf and meeting the demand of grazing and browsing. Mr. Porter proposed 38 fuel series in his plan and allowed goat browsing.

188. Mr. Porter's plan was revised by Mr. H. B. Bryant in 1907 and again in 1911. He also stopped goat browsing in the State forests. Mr. Bryant was the main force to introduce pines in the Upper Palanis in 1906, probably for supply of valuable timber.

189. In the year 1916, Mr. C. C. Wilson revised the plan of Mr. Bryant resulting in increased supply of fuel from forests.

190. During the year 1918-19 Mr. Woodhouse Adoophas prepared scheme for bamboo working with felling eycle of 3 years.

191. Then in 1922, a revised scheme was prepared by Mr. A. P. Srinivasa Ayyangar (Ranger) for increased fuel supply from Kodikanal Range. On similar lines, another schme was prepared in 1929 by N. E. Eswara Ayyar (Ranger) Who opened fuel series in Virupakshi.

192. Then came the schme of Mr. J. A. Master in 1931 to protect and improve the pine plantations after 1930 disastrous cyclone. He prescribed raising of fire belt of watttle around pine plantations.

193. *Planning Period.*—This relates to the period after the year 1936 till date. It is during this period that all the forests of Madurai Divisions were brought under proper working plans based on scientific and conservancy principles. Since 1936, the Madurai forests have seen the following Working Plans

194. (1) *Venkateswara Ayyar's Pl..n* (1936-1946).—This was the first working Plan dealing iwth all the forests of the Divisions. He formulated following nine working circles under his plan.

(1) The Selection Working Circle.

(2) The clearfelling Working Circle.

(3) The fuel Working Circle.

(4) The Brake pole Working Circle.

(5) The Bamboo Working Circle.

(6) The Sandal Working Circle.

(7) The Minor Forest Produce Working Circle.

(8) The Lac Working Circle.

(9) The Protection Working Circle.

195. (2) *Ghate's Plan* (1950-1963).—During the intervening period (i.e. (1947-49) the prescrip tion of Ayyar's plan were followed. Mr. Ghate, N. S. formed the following working circle his plan to manage the forests.

(1) Timber selection working circle.

(2) Teak conversion working circle.

(3) Fuel working circle.

(4) Concentrated Regeneration working circle.

(5) Manure leaf working circle.

(6) Brakepole working circle.

(7) Bamboo working circle.

(8) Wattle Plantation working circle.

(9) Lac Working circle

(10 M.F. P. Working circle.

(11) Protection Working circle.

196. (3) *Tholamani Devar's Plan* (1958–1968).—Mr. Ghate's plan could not be followed effectively due to many territorial changes during the period and Division of Madurai forests into two forest Divisions. Consequently, Mr. A. M. Tholamani Devar revised the Ghate's plan pertaining to Madurai North Division. He constituted following Working circles :—

(1) Wattle Working circle.

(2) Matchwood conversion Working circle.

(3) Teak working circle.

(4) Rehabilitation working circle.

(5) Fuel working circle.

(6) Buegum working circle.

(7) Bamboo working circle.

(8) M.F.P. Working circle.

(9) Grazing working circle.

(10) Manure leaf working circle.

197. *Karunakaran's Plan* (1974–84).—During the intervening period, i.e. (1970–73) prescriptions of Tholamani's plan were followed, which was revised by Mr. M. S. Karunakaran. He constituted following working circles, in addition to Miscelaneous prescriptions:—

(1) Wattle working circle.

(2) Bluegum working circle.

(3) Patula pine working circle.
(4) Rose gum working circle.
(5) Teak working circle.
(6) Softwood working circle.
(7) Fuel working circle.
(8) Bamboo working circle.
(9) M.F.P. Working circle.
(10) Silk cotton working circle.
(11) Geranium working circle.
(12) Grazing working circle.

Section 3—Result of past m nagement.

198. Till date, the result of past management have not been discussed in consolidated manner under each category of forest so managed, but dealt under different working circles pertaining to same category of forests, such piece meal discussion never give a complete picture of systems adopted and their results to the reader and the Manager. Now, the efforts are made to discuss the results of past management in a consolidated manner from the date the forests have been brought under systematic working basing on available recorded information. Further, this discussion here, shall be restricted to those forests falling under the purview of present forest Division.

199. *Fuel Forests.*—Since begining, these forests have been the main target for their exploitation for firewood and small timber mainly because of their proximity to villages and easy accessibility . Not much of thought was given to conserve them for future and pasterity. That is why all the fuel forests are badly degraded in quality and at many places consist of nothing bflt Euphorbis species.

200. While prescribing for the first time, Mr. Porter adopted simple coppice system with rotation of 30 years to manage these forests· He constituted 38 felling series and estimated about 21,000 tons of firewood, annually, Obviously, he opted for cutting of all growth without bothering for future crop and agrevated the situation by allowing goat browsing in the State forests.

201. Mr. Bryant tried to check the harm done to these forests by excluding unworkable and steep areas from working and stopping the goat browing. He adopted coppies with standard system, thereby giving some relief to these forests. Consequently, the annual firewood outturn was reduced during this plan· Therefore, Mr. C.V. Wilson was asked to revise the plan so as to increase the firewood outturn. He increased the number of series keeping some period of rotation. Therefore, once again these forests were put to heavy working. However, he a lowed coppice with standard system. It was been pointed out in subsequent plans that standard were not marked properly and many a times over-working of forests were allowed, advertently or inadvertently.

202. During 1922, Sri Ayyangar reverted to simple coppice system and prescribed different rotation of 30 and 40 years for different areas. Though he also stood for whole sale sacrifice of forests but for first time he prescribed subsidiary silvicultural operations after main felling. He advocated regeneration of blanks and accordinly constituted regeneration series. Sadly enough all his prescriptions were not followed for betterment of existing forest stock.

203. Mr. Venkateaswara contemplated no changes in his plan except prescribing for artificial regeneration by 'rab' method. Many areas were regenerated under Kumri system and good results were obtained. His Plan also failed in prescribing subsidiary silvicultural operations to the coppiced crop.

204. *N. S. Ghate's Plan.*—Mr. Ghate closed six fuel series in his plan which were poor in growth and changed the silvicultural system to 'Coppice with Reserve' system. Useful fruit trees and Minor Forest Produce trees such as Tamarind, sapindus, T. Chebula and Emblica officinalis, etc., were to be retained. However, he followed the same old rotation period of 30 years. Mr. Ghate introduced artificial regeneration systematically by Constituting concentrated regeneration working circle. At the same time, he prescribed Manure leaf working circle which did considerable loss to forest crop due to lopping of leaves and breakage of branches and tree tops. Both these plans also constituted Breakepole Working circle to exploit these forests for Breakepoles required for checking speed of down coming carts. Due to lack of demand this circle was closed by Mr. Devar in his plan.

205. *Devar's Plan.*—He made no change in his plan and almost followed the previous plan. He constituted 29 fuel series out of which 12 were not fit for working and almost remained unsold or fetched very low prices due to very poor stocking. He also prescribed Manure leaf working circle which proved quite determental to forest crop. The subsidiary opesations prescribed by him were not followed properly and many unwanted trees in addition to Reserve were also not cut. This resulted in high occurence of uneconomical species like Gryrocarpus, Euphorbia and thorny bushes of Pterolobium and intica, etc.

206. Mr. Devar prescribed strip regeneration method of stock these forests.

(*a*) He closed the felled coupes for grazing for period of 5 years including year of felling.

(*b*) Cutting back of climbers on 2nd year.

(*c*) Retaining of trees along streams and rivers. (1 chain either side)

(*d*) Planting of coupe stone, etc.

207. All these prescriptions were not carried out properly, resulting into poor stocking and degradation of forests to decidious scrub or thorn scrub.

208. He also prescribed artificial regeneration in fuel coupes of 12 series. This gave satisfactory results. But he did not mark the areas and left the choice to District Forest Officer's which was never used, faithfully.

209. *Karunakaran's Plan.*—He continued with same silvicultural system and rotation and reduced the fuel series to 17 excluding 12 poorly stocked series of previous plan. He also prescribed the regeneration of suitable coupe areas under Kumri method without indicating area and sequence to be followed. This resulted in hephazard planting programme without uniformity of annual areas. Moreover, only certain areas were taken up for regeneration under Kumri and many coupes were left out.

210. Coming to the retention of reserve trees of Tamarind, Chebula, Neem, Nax-vomica, Soapnut, Pungam and Mango, it has been observed that no reserve tree was retained except Tamarind and No registered of reserve trees for each coupe was maintained. This is majo lapse on part of executive staff which gave a free hand for contractors to deplete these forests as they liked, . This non-observance of silvicultural system is main cause for massive degradation forests coupled with grazing and lopping problems. Accordingly, we see hills devoid of trees and most of areas full of thorny bushes of Euphorbiea, Cassia intica and a e unfit for further working. Recognising the damage done by Manure leaf working circle of previous two plans, this circle was closed in this plan and removal of manure leaf was restricted from current fuel coupes only.

211. On the whole, these forests have been over worked year after year leaving them almost barren with very poor annual increments. The situation being further aggravated by illicit removals, heavy grazing and goat browsing. The administration has been a utter failure on this aspect of protection of these areas, which, they need most than any silvicultural system.

212. *Teak Forests.*—Natural teak areas in the tract are rather Nil or of very poot type. All of the available teak is artificially planted up during the last century. Teak was first introduced by Col. Camphell Walker in 1869-70 in Velancomba area and sub sequently followed up in Irrutar, Mulayar and Karuvepilai Odai areas. Systematic teak planting has been carried out from the year 1937 to 1945 and then from 1960 to 1970.

213. Thus it is evident that though teak was introduced as early as 1869 but no adequate follow up action was contemplated to tend this teak or increase areas under teak till Mr. Venkateswara's plan. He constituted clearfelling working circle to convert more areas under teak. Out of his four felling series two belonged to this Division i.e., Velancombai and Irrutar felling series. The main object was to increase the commercial value of forests and to grow valuable timber.

214. He also prescribed planting of Vengai and Rosewood along with teak.

215. The 1869 teak area was felled in 1937 during this plan and allowed the coppice regeneration. However, he did not fix any rotation for teak and also did not prescribe subsidiary operations to be carried out at later dates.

216. Mr. Ghate also followed the previous system of clearfelling with artificial regeneration but stopped further plantations in Irrutar series and allowed few plots to be raised in Velancombai series. He also did not fix any rotation for teak in his plan.

217. He also did not prescribed regular and systematic thinnings of teak which resulted into congestion of crop and high occurence of lanky poles.

218. Recognising the timber deficiency in Division and state as well, Mr. Tholamani Devar rightly ventured to increase areas under teak through artificial planting. He opened up two more planting areas in Kannivadi Range (Karuveppilai Odai) and Molayar block in Kodaikanal Range, with good success. He also precscribed teak planting in Bodi Range (Pudukulam and Pamber) but these areas failed badly.

219. He fixed 40 years rotation for teak with aim to manage the crop for extracting poles since teak was of poor quality (IV/V/type).

220. He also prescribed regular thinnings on 6th, 13th and 20th years, the first two being Mechanical thinnings and other subsidiary operations. These prescriptions gave encouraging results and resulted in appreciable increased area under teak.

221. Mr. Karunakaran followed the suite for tending the existing teak areas only and he did not mark fresh area for planting with teak in his plan. Only change, he effected, was to reduce the Mechanical thinnings to one (i.e. 6th year) and subsequence thinnings to be of selection nature. This seems to be a mistake and resulted in congestion in all areas.

222. Though Mr. Karunakaran fixed rotation of 40 years but he failed to indicate areas coming for felling and accordingly no final felling was carried out except that of submergible area in Velancombai block.

223. On the whole, though the teak has been giving encouraging results, it has not been managed properly and many of the prescriptions remained only on paper.

224. *Bamboo Forests.*—Bamboo has been present in small extent of areas in Kodaikanal (now Bodi) Palani and Kannivadi Ranges of this Division. The crop consisted mainly of Dendrocalamus stricts with sprinkling of Bamboosa arundinacea. Working of Bamboo forests were started as early as 1919 with formulation of working scheme by Mr. Woodhouse Adaphus. He prescribed 3 years felling cycle, which continues till date.

225. Shri Venkateswara formed seven felling series out of which 5 come under the present division, viz.,

(1) Kudirayar series

(2) Virupakshi series

(3) P. V. Valley series

(4) Periakulam series

(5) Devadanapatti series

226. The very same series were continued in Mr. Ghate's plan as far as this Division is concerned.

227. Both these plans prescribed artificial planting of Bamboo which was total failure and then stopped.

228. Mr. Devar retained only 3 fellings series in his plan, excluding Periakulam and Devadanapatti series which were badly depleted due to over and continued working, even after gregarious flowring in year 1935 in these areas. However, he also followed same felling cycle of previous plan.

229. He also prescribed planting of bamboo at 33'×33' but without indicating the coupes which resulted in no systematic follow up action. There is only one Bamboo plantation in Mulayar, R.F. No more efforts seems to have been done or else, efforts might have failed.

230. Mr. Karunakaran constituted only one felling series (Virupakshi) and gave rest to other two series i.e., P. V. Valley and Kudirayar series in his plan. This has certainly helped bamboo forests to recoupe in Kudirayar, R.F., whereas effect is not so appreciable in P.V. Valley R.F.

231. However, Karunakaran's plan suffered from supplementing the existing natural growth of bamboos through artificial regeneration since he did not prescribe any fresh regeneration of Bamboos.

232. A critical look on the preceeding paras will reveal that Bamboo forests have been allowed to be over worked without considering the silvicultural rules and regulations ending in depletion of Bamboo stock. This is self evident in continued exclusion of bamboo series in subsequent plans from fire series to one in the current plan under review, Not only that, the emphasis has been exploitation, alone, without considering improvement and supplementing the existing resources by artificial means.

233. This indeed a very sad history of forest management and needs a fresh outlook and strict enforcement of felling rules to achieve the long cherished goals of forestry.

234. *Tamarind.*—Tamarind exists through out the tract, naturally. In addition various plantations have also been raised in suitable places under different working circles of previous plans viz., fuel, miscellaneous and rehabilitation and different plan schemes.

235. But the management of Tamarind remained under M.F.P. working circle without proper prescriptions for tending these plantations. This resulted in negletc on part of territorial staff and Tamarind Plantations were not looked after properly and the crop remained poor and congested.

236. However, Tamarind regeneration operations should moderate success wherever attempted. Past results shows that whenever more (100 acre and more) areas was taken for regeneration, it met with failure. There is a case for smaller tamarind plots with rigid protection.

Other Plantations.—

237. (*a*) *Silk Cotton* (*Ceiba Pentandra*).—Introduction of Silk cotton was first suggested by Mr. Ghate in his plan. This was followed up by Mr. Devar and Karunakaran in their respective plans with satisfactory results. In fact, Mr. Karunakaran constituted full scale working circle to manage this crop.

238. Various subsidiary operations were not carried out in the pantations which resulted into congestion of crop and crown development of trees suffered badly. Consequently the potentiality of each tree to put up more number of pods was lost resulting in the loss of revenue from these plantations.

239. This congestion of crop added to poor bole formation, further reducing the value of wood to be obtained at the time of felling.

240. (*b*) *Ailanthus and Bombax.*—These species were first introduced in 1954 in Ayyakudi Ex-Zamin Forests, mainly to meet the demand of Matchwood Industry. An area of 10 hectares were raised which was claimed as patta resulting stoppage of further planting work. Thus both species were tried in Pudukulam area in Bodi Range in 1956 but results were not encouraging.

241. Between the both species Ailanthus excelsa showed better results than Bombax Ceiba. Mr. Devar constituted Matchwood conversion working circle to increase Ailanthus in Division. Plantations were raised in Pudukulam and P. V. Valley, R.F. under Kumri with moderate success. Since, he did not mark planting coupes, planting was not done in other places regularly.

242. Mr. Karunakaran did not prescribe further area for Ailanthus and prefered to manage it under Miscellaneous prescriptions. He also pointed out that Ailanthus is not doing well at both the places and prescribed fellings whereas in other places as Chattrapatti and Dharmathupatti Combai it was complete failure. However, these plantations have not been felled as prescribed.

243. Even now these Ailanthus plantations give stunted look with plenty of epiyphyte attack. Many trees in Pudukulam area are showing top (Apical) dyeing where in P. V. Valley plantation do not shown any aprreciable growth increments. Therefore, it will be fitting to replace this species in due course.

244. (*c*) *Eucalyptus Hybrid* (*Mysore Gum*).—Eucalyptus hybrid has been introduced in the Division during Mr. Devar's plan in Palani, Kannivadi, Ayyalur Ranges under regeneration of fuel series. It has shown moderate success. At many places sketches of plantations are not available, even plantation journals have not been written. This species has poor scope in this division.

245. Mr. Karunakaran did not prescribe any are for planting and maintained these plantations as such with rotation of 8 years.

246. *Sandal.*—Natural sandal is found in the Kodai Range between Oothu and Tum-Tum parai area around Pulathur village and in small number around Pachalur Village and Pillaiyar natham, R.F. The Sandal trees contains very little heartwood.

247. Mr. Venkateswara Ayyar constituted sandal working circle to tend the sandal, which was abolished by Mr. Ghate in his plan.

248. Few Sandal plantations have also been raised in the past with partial success. However, it is observed that sandal has no future in the Division due to little heartwood and stunted growth shown by natural sandal trees.

249. *Minor Forest Produce.*—This working circle comprised of entire forest area. Minor Forest Produce sold from the Division are Bamboo, Tamarind, Gallnut, Soapnut, Bothai grass, Avaram and Konnai bark, Nellikai, Honey and wax and silk cotton pods, are worth mentioning.

250. The prescriptions given in each plan seems to be quite satisfactory.

251. *Grazing.*—Grazing has been regularised in the Division since inception of first plan in 1900. Even goat browsing was also permitted at that time. This folly was recognised and goats were excluded from forests during subsequent revision.

252. Mr. Wilson (1916) further prescribed for exclusion of sheep also and suggested higher grazing fee for reducing the grazing incidence. Certain R.F.s were even closed for grazing in Palani Range.

253. Mr. Iyyar did not effect any change in his Plan. Sheep grazing was prohibited in Ayyalur Range. The system of rotational grazing tried in 1941-42 in Pannamalai R.F. did not prove success.

254. Mr. Ghate followed same prescriptions. Even sheep grazing was allowed in Ayyalur Range during his Plan.

255. Mr. Tholamani Devar prescribed closure of plantations and felled areas for period of 5 years which has been followed by Mr. Karunakaran in his Plan.

256. Kaduguthadi, Siruvatkadu and Velan Combai Reserve forests remain closed to grazing under Board's proceedings forest No. 73, dated 7th July 1917.

257. However, it is evident from the State of Forests that all the forests have been subjected to over grazing in the past. Though goats have been prohibited from entering forests, but goat browsing is quite common in all the forests, mainly with connivance of local beat staff. Even other grazing regulations have not been enforced properly. Certainly, the grazing is number one biotic factor responsible for degradation of the existing forests in whole of the Division. This is, indeed, and alarming situation which needs to be tackled on war-footings lest these forests will be rendered useless and incapable of fullfilling the meagre demands of local population for firewood and small timber. Appendix No. X gives the detailed information about number of animal units grazed in each range and the revenue realised during the plan period.

258. *Cardamom Cultivation.*—The necessity for cultivation of Cardamom in the sholas of Madurai district was recognised by Government as early as 1874. In 1887, the control of Cardamom leases was transferred to the Forest Department. The rental for Gardamom leases was Rs. 0.75 per acre and then increased to Rs. 3 per acre in 1894. The lease period was fixed at 30 years and by this time there were about 40 Cardamom leases in Kodaikanal and Palani Range.

259. In 1917, the lease period for new leases was reduced to 25 years.

260. By 1923, there was great demand for Cardamom leases, hence policy adopted was to discouraged the grant of fresh leases. However Mr. K. A. Chengappa strongly advocated for grant of fresh leases through open auction. This lead to formulation of certain by-laws to govern grant of leases, by a committee comprising District Collector, the Conservator and District Forest Officer.

261. During the period from 1926—1930 a large number of Cardomam leases were granted. The Collector was the sanctioning authority.

262. From 1932, considering keen demand, and on proposal of the Collector, the leases were sold in open auction for a period of 25 years and many leases were sold up to the year 1934 and Government realised plenty of revenue by adopting this procedure.

263. Mr. Devar's prescriptions regarding Cardomam are given below :—

(1) No fresh leases to be sold.

(2) Cancelled and surrendered leases should be put for sale at the earliest.

(3) Maintenance of register showing number and location of these leases.

(4) Rigid enforcement of lease rules.

264. The last two recommendations were not carried out properly, a lapse on part of administration.

265. In the following years, policy of Government regarding rental for Cardamom leases changes many a times and Rs. 50/hec. was fixed by Government in 1970.

266. Mr. Karunakaran also did not prescribe leasing of fresh area for Cardamom to protect the shola forests. He also proposed that existing area should be divided into bits of 2 hectares and resold in auction. This suggestion has been accepted by Government and is under implementation.

267. Other prescriptions as maintenance of lease register, annual inspections and checking of surveys and posting of maps were not carried out properly.

268. The list of existing Cardomam leases is given below :—

Name of the range.	*Number of leases.*
(1)	(2)
1. Kannivadi Range	63
2. Thandikudi Range	149
Total ..	212

269. Detailed list of Cardomom leases is given in Appendix No. XI.

270. In the meantime, Government policy underwent major change regarding rental and slab system was introduced with increasing rental slab for higher holdings. This met with lot of opposition from cultivators and many went in litigation, with result that the order could not be given effect to. Final decision is yet to be taken.

Section-4—Special Works of Improvement Undertaken.—

271. *Fire protection.*—Prior to Venkateswara Iyer's Plan, fire protection confined mainly to Pine plantations and shola forests. Australian wattles were raised, around these plantations and sholas, being fire resistent species.

272. Iyer prescribed early burning of areas adjoining the Zamindari forests in December, January besides continuing with raising of wattle around sholas. He also suggested enhancement of grazing fee and closure of fireburnt area to grazing. He further recomended total ban on collection of minor forest produce from certain areas and fire tracing measures.

273. Mr. Ghate, gave up early burning instead recommended fire tracing of dangerous spots and halting places, fire protection of dangerous footpaths.

274. Tholamani Devar stressed more on fire protection of wattle plantations by scrapping and fire tracing the boundaries. He also advocated employment of fire watchers at convenient and vulnerable places. He also prescribed scrapping of inspection paths, roads etc., to a width of 11 feet.

275. Mr. Karunakaran followed the same prescriptions with drastic and impracticable suggestions like exploding water bombs, fire fighting through Helicopters, exploding Carbon dioxide bombs, etc.

276. On the whole fires did occur and caused considerable damages. More than the prescriptions, frequent inspections by Officers, co-operation from people and motivated subordinates are very essential.

277. *Plantations.*—A reference has already been made under previous Section.

278. Introduction of Sislana, sun flower, tops of coconut etc., as prescribed by Mr. Karu karan, were not carried out.

279. Regeneration of areas with grass to improve grazing in Ayyalur Range also met with utter failure. Similarly, efforts to grow Bursera delpechiana (Indian lavender) in Ayyalur Rest House also failed.

280. *Roads.*—A reference to the existing roads has been made in para 127 of Chapter III. A full list of existing roads in the Division is given in Appendix No. XII. No new roads were formed in the Division. Inspite of prescriptions of maintain existing roads, the roads have not been maintained regularly, therefore, many of the roads are unfit for Jeep even.

281. *Buildings.*—A complete list of buildings in the division is given in Appendix No. XIII. Only two buildings have been constructed during the plan under review viz.

Name of the buildings.	*Year.*	*Capital Cost.*
(1)	(2)	(3)
(1) Forester's Quarters at Palani	1974–75 ..	Rs.21,417.26
(2) Ranger's Quarters at Palani	1974–76 ..	Rs.29,676.00

282. The position in respect of buildings in division is far from satisfactory. New buildings shall be constructed as per prescriptions.

283. *Water Supply.*—A complete list of wells maintained by Department is given in Appendix No. XIV. The position regarding water supply is, on the whole, satisfactory except Thandigudi area.

284. *Amelioration of Hill Tribes.*—Bethalapuram forest Co-operative Society is formed under chairmenship of Kannivadi Ranger to avoid exploitation by middleman. M.F.P. collection contracts are given to this society. This needs to be extended to other areas also.

285. *Survey and Settlement.*—Consequent to Estate Abolition Act, the Estate forests were taken over by the Government in pursuance of G.O. Ms. No. 1416, Revenue, dated 2nd June 1951. Though these ex-zamin forests came under the control of Forest Department, not much done to constitute them as Reserve Forests till late senenties. This has given room for large number of encroachments in these forests.

286. The tempo of settlement work geared up only during 1976 when the Forest Settlement Officers' post was down graded to level of Tahsildar, since no deputy Collector was joining this post. Subsequently out of 8 such ex-zamin forests only three could be finally declared as Reserve Forests under section 16 of Tamil Nadu Forest Act, 1882 viz.

(1) Idayakottai.
(2) Chatrapatti.
(3) (Rettiambady) Andipatti.
(4) Periyammapatti.

Section 5—*Past Yield* :

287. *Fuel.*—The average coutturn of fuel wood obtained from each series is given in the following statements :—

Serial number.	*Name of the series.*	*Number of coupes worked.*	*Total area worked.*	*Total yield obtained in tonnes.*	*Yield per ha. in tonnes.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	I. Ayyalur Range.					
1	Combai	6	179.06	3,745.00	20.9	....
2	Kaluvadi	6	191.32	1,976.00	10.3	....
3	Mudimalai	5	118.76	3,507.50	21.9	....
4	Moongilkaradu	6	141.99	1,482.00	12.5	....
5	Panjanthangi	5	117.67	2,197.00	18.7	....
6	Sorimalai	6	162.57	3,012.00	18.5	....
7	Sendurai	6	194.63	3,267.50	19.1	....
8	Pillaiyarnatham North ..	6	178.98	3,580.00	23.4	....
9	Pillaiyarnatham South ..	5	103.022	2,914.50	8.3	....

1	2	3	4	5	6	7
	II. Palani Range :					
10	Kuthiraiyar	4	72.46	3,524.00	48.9	....
11	Palani	4	74.21	2,612.00	35.2	....
12	Rettayambadi	4	101.30	1,521.00	15.7	....
	III. Kannivadi Range :					
13	Chatrapatti	4	101.04	1,295.00	23.8	....
14	Virupakshi South ..	1	18.02	395.00	21.9	Stopped as per C.Cs. No. 20452/J3, dated 18th March 1974.
	IV. Bodi Range :					
15	Amburuvi	3	60.00	143.50	3.8	....
16	Pambar	4	108.57	145.50	13.0	....
17	Adukkam	..	..	..	..	....
18	Iruttar	3	73.10	372.25	7.4	....

288. The detailed infor ation of coupe sold and revenue realised per unit area is given in Appendix No. XV.

289. *Bamboos.*—The revenue realised from the bamboo coupes is given below :—

Year. (1)	*Range.* (2)	*Number of coupes sold.* (3)	*Revenue realised.* (4)	*Remarks.* (5)
			RS. P.	
1974–75 ..	Kannivadi Range	Virupakshi III	8,000.00	Dindigul Division.
1975–76 ..	Do. ..	Do. I	9,042.00	....
1976–77 ..	Do. ..	Do. II ..	17,105.00	....
1977–78 ..	Do. ..	Do. III ..	6,210.00	....
1978–79 ..	Do. ..	Do. I ..	10,707.00	....
1979–80 ..	Do. ..	Do. II	13,515.00	....

90. *Yucalyptus Hybrid.*—The quantity of wood obtained and revenue realised in given below :—

Year of Plantation. (1)	*Name of the plantation or Location.* (2)	*Area in hectares.* (3)	*Felled year.* (4)	*Revenue.* (5)	*Yield in tonnes.* (6)	*Remarks.* (7)
	Ayyalur Range :					
1963	Pillaiyarnatham	8.00	1979–80	2,552.00	31.900	....
1964	Pillaiyarnatham with Miscellaneous.	20.00	1979–80	2,024.00	25.300	....
1965	Pillaiyarnatham	10.00	Do.	176.00	2.200	Only E.H. felled.
1966	Mongilkaradu	4.00	Do.	4,664.00	58.300	....
1964	Mudimalai	18.00	Do.	132.00	1.650	....
1965	Do. ..	20.00	Do.	792.00	9.900	....
1966	Do. ..	20.00	Do.	836.00	10.450	....
1967	Do.	11.75	Do.	880.00	11.00	....

1	2	3	4	5	6	7
	Palani Range :					
1959	Rettaiyambadi	4.00	1979–80	8,712.00	108.900	....
1960	Do. ..	4.00	Do.	9,944.00	124.300	....
1961	Do. ..	4.00	Do.	5,192.00	64.900	....
1962	Do. ..	4.00	Do.	5,544.00	69.300	...
1963	Do. ..	5.87	Do.	9,680.00	121.00	...
1964	Do. ..	8.00	Do.	1,320.00	16.500	....
	Kannivad Range :					
1963	Komalippatti	8.00	1979–80	616.00	7.700	....
1964	Kruveppilai Odai ..	18.00	Do.	46,464.00	580.800	
1963	Virupakshi South F.C. XIV	8.00	Do.	50,952.00	636.900	....
1964	Virupakshi South F.C. XV	18.00	Do.	5,896.00	73.700	....
1965	Virupakshi South F.C. XVI	8.00	Do.	2,728.00	34,100	....

291. *Minor Forest Produce.*—A statement of yearwise revenue realised from M.F.P. is given below :—

Serial number.	*Year.*	*Tamarind.*	*Bothai grass.*	*Kadukkai.*	*Avaram and Konnai Bark.*	*Other minor Forest Produce.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	1970-71	3,766.00	20,817.00	2,731.00	165.00	6,511.00	33,990.00
2	1971-72	3,340.00	9,551.00	..	120.00	10,053.00	22,064.00
3	1972-73	4,721.00	24,203.00	5,903.00	401.00	8,455.00	43,683.00
4	1973-74	9,230.00	29,981.00	..	125.00	12,455.00	51,791.00
5	1974-75	29,436.00	87,710.00	16,001.00	..	17,875.00	151,022.00
6	1975-76	17,806.00	2,600.00	..	..	22,530.00	42,936.00
7	1976-77	13,275.00	30,490.00	27,000.00	..	28,865.00	99,630.00
8	1977-78	21,310.00	26,800.00	..	..	19,688.00	67,798.00
9	1978 79	19,710.00	43,400.00	60,110.00	..	51,500.00	174,720.00
10	1979-80	31,382.00	54,435.00	..	..	43,805.00	129,622.00
11	1980 81	88,282.25	2,51,870.00	79,310.00	..	57,825.00	477,287.25
	Total ..	2,10,876.25	5,80,857.00	1,91,055.00	811.00	2,79,562.00	129,454.25
Average for 11 Years		1,970.57	52,805.18	17,368.64	73.73	25,414.73	1,17,685.74

292. The detailed itemwise and yearwise revenue realised is given in Appendix No. XVI.

293. *Grazing*.—A statement showing annual realisation of grazing revenue is given below :—

Year.	*Ayyalur Range.*	*Bodi Range.*	*Palani Range.*	*Kannivadi Range.*	*Total*
(1)	(2)	(3)	(4)	5	6
1971-72	8,108.00	12,377.50	10,192.00	3,115.00	33,793.00
1972-73	7,082.00	9,192.50	4,689.00	5,365.00	26,728.50
1973-74	8,060.00	9,352.50	6,805.00	7,110.00	31,327.50
1974-75	6,933.00	8,244.50	2,159.00	930.00	18,266.50
1975-76	6,505,00	7,588.00	1,784.00	3,740.00	19,617.00
1976.77	7,531.00	7,071.00	2,586.00	4,560.00	21,748.00
1977-78	7,862.00	7,703.50	14,650.00	13,232.00	43,447.50
1978-79	11,660.00	12,432.00	13,410.00	10,540.00	47,982.00
1979-80	10,071.00	14,152.00	15,660.00	16,096.00	55,979·00
1980-81	9,749.00	15,832.00	2,0572.00	17,960.00	64,113.00
1981-82	9,833.00	16,405.00	..	1,380.00	27,618.00
Total ..	93,334.50	20,350.50	92,507.00	84,428.00	3,90,620.00

294. The detailed grazing particulars is appended in appendix No. X.

295. *Silk Cotton*–The total number of pods collected during 1981 by departmental agency is given below:—

Serial number.	*Name of the Range*	*Number of Capsules collected from plantations.*	*Number of Capsulse collected from encroached area.*	*Total*
(1)	2	(3)	(4)	(5)
1	Bodi	4,08,195	87,200	4,95,395
2	Kannivadi	9,09,200	2,18,000	11,27,200
3	Palani	10,050	..	10,050
	Total ..	13,27,445	3,05,200	16,32,645

Section 6—Past Revenue and Expenditure :

296. Detailed revenue realised and expenditure incurred under each head and account is given in Appendix No. XVII.

297. The following statement gives the yearwise total revenue and total expenditure for the period under review.

Year.	*Revenue.*	*Expenditure.*	*Surplus.*	*Deficit.*
(1)	(2)	(3)	(4)	(5)
1972–73	11,79,879.00	15,06,162.00	..	3,26,283.00
1973–74	15,60,425.00	16,59,587.00	..	99,162.00
1974–75	22,63,526.98	17,81,383.94	4,82,143.04	..
1975–7	28,53,714.78	18,66,689.00	9,87,025.78	..
1976–77	41,24,242.00	23,18,812.00	18,05,430.00	..
1977–78	37,47.623.25	25,17,694.07	12,29,929.18	..
1978–79	49,92,817.72	25,37,924.84	24,54,892.88	
1979–80	65,96,823.00	35,30,513.00	30,66,310.00	..
1980–81	1,63,42,624.25	38,87,922.80	1,24,54,701.45	..
1981–82	2,49,53,199.78	39,39,723.55	2,10,13,476.23	..
Total ..	6 86,14,875.76	2,55,46,412.20	4,34,93,908.56	4,25,445.00
Net Surplus		4,30,68,463.56		
Average Surplus		43,06,846.35		

298. On the whole, division has shown surplus except years 1972-73 and 1973-74.

299. The following statement will be of interest to know the comparative performance of division over last three decades.

	1952–53 *to* 1961–62.	1962–63 *to* 1971–72.	1972–73 *to* 1981–82.
(1)	(2)	(3)	(4)
Total Revenue (Rupees)	42,51,201.00	78,80,514.00	6,86,14,875.76
Total expenditure	32,66,924.00	91,62,239.00	2,55,46,412.10
Net surplus/deficit	(+) 9,84,277.00	(—) 12,81,725.00	(+) 4,34,93,908.56
Average surplus/deficit (Æ)	(+) 98,427.70	(—) 1,28,172.50	(+) 43,49,390.86

300. The main reason of deficit, during 1962 to 1971 decade, is large scale planting work under taken. These plantations started giving revenue during next decade, hence a large surplus.

CHAPTER VI.

STATISTICS OF GROWTH AND YIELD.

Section 1—Statistics of growth and yield.

301. *Teak.*—No sample or increment plots exist in this division, with the result no periodical date is available. However, representative sample plots were laid out in the teak plantations and data collected is furnished in following statement:—

(*a*) TIMBER SERIES.

Serial number.	*Year of formation.*	*Age as on 1981.*	*Manjalar Block.* *Average height.*	*Manjalar Block.* *Average girth.*	*Velancombai Block.* *Average height.*	*Velancombai Block.* *Average girth.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		YRS.	MTS.	C.M.	MTS.	C.M.
1	1937	44	25	1.33	30	154.71
2	1938	43	22	1.08	..	..
3	1939	42	24	128	28.50	140
4	1941	40	20	111	29.00	115
5	1942	39	18	104	..	..
6	1943	38	14	70	..	..
7	1945	36	15	76.5	..	..
8	1946	35	10	65.2	..	..
9	1947	34	18	86	..	..
10	1948/49	33	16	90.9	..	..
11	1957	24	..	..	23.00	60
12	1962	19	12	74	..	..

302. (*b*) *Pole Series:*

Serial number.	*Year of formation.*	*Age as on 1981.*	*Karveppilai Odai Block* *Average height.*	*Karveppilai Odai Block* *Average girth.*
(1)	(2)	(3)	(4)	(5)
		YRS.	MTS.	C.M.
1	1960	21	15	50
2	1961	20	12	40
3	1962	19	13	41.1
4	1965	16	8.5	37.5
5	1966	15	7	26.6
6	1967	14	4	26.0
7	1968	13	9	40.00

303. It is observed that teak growing in Velancombai block is better than Manjalar block teak. Further girth increment put up in both blocks is of better quality than corresponding height increment.

304. MAI in timber series is about 3 to 3.5 cms. whereas CAI works out to be 7 cms. to 12 cms.

305. *Bamboo.*—Representative sample plots were laid down in each coupe and following results obtained:—

Name of Coupe.		*Average number of Culms per clump.*	*Average girth of Culm at both end.*
(1)		(2)	(3)
			C.M.
Virupakshi	I	7.0	10.0
	II	5.3	8.5
	III	5.7	8.0
Palani	I	11.2	14.5
	II	10.0	13
	III	12.8	16.00

306. *Silk Cotton.*—Number of capsules produced by each silk cotton tree were counted on 10 trees at randum in successful plantations in Karuveppilai Odai area of Kannivadi range and results are given below :—

Year of formation of plantation.	*Age as on 1982.*	*Average number of Capsules per tree.*
(1)	(2)	(3)
	YRS.	
1970	12	160
1971	11	145
1972	10	155

307. *Fuel Forests.*—The average outturn per hectares from each worked series during last plan is furnished below:—

Serial number.	*Name of the series.*	*Number of coupes worked.*	*Total area worked.*	*Total yield obtained (In tonnes).*	*Yield per hectare (In tonnes).*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			I. Ayyalur Range.			
1	Combai	6	179.06	3,745.00	20.9	....
2	Kaluvadi	6	191.32	1,976.00	10.3	....
3	Mudimalai	5	118.76	3,507.5	21.9	....
4	Moongilkaradu	6	141.99	1,482.00	12.5	....
5	Panjanthangi	5	117.67	2,197.00	18.7	....
6	Sorimalai	6	162.57	3,012.00	18.5	....
7	Sendurai	6	194.63	3,267.50	19.1	....
8	Pillaiyarnatham North ..	6	178.98	3,580.00	23.4	....
9	Pillaiyarnatham South ..	5	103.02	2,914.50	28,3	....
			II. Palani Range.			
10	Kuthiraiyar	4	72.46	3,524.00	48.9	....
11	Palani	4	74.21	2,612.00	35.2	....
12	Rettayambadi	4	101.30	1,521.00	15.7	....
			III. Kannivadi Range.			
13	Chatrapatti..	4	101.4	1,295.00	23.8	....
14	Virupakshi South	1	18.02	395.00	21.9	Stopped as per C.C's. No. 20452/J3, dated 18th March 1974.
			IV. Bodi Range.			
15	Amburuvi	3	60.00	143½	3.8	....
16	Pambar	4	108.57	1451½	13.0	....
17	Adukkam	..	..	..	..	....
18	Iruttar	3	73.10	372.25	7.4	....

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PART II.

CHAPTER I.

Basis of Proposals.

Section 1—General objects of Management.

1. In consideration of National Forest Policy and general principles of forest management coupled with the local demands on these forests, the objects of management will be :—

(1) The Protect, conserve and improve the forest vegetation so as to realise in full, their climatological value, in conservation of soil, water and air.

(2) To stock the existing but demuded forests as fully as possible and to increase the percentage of valuable species as far as possible (by artificial planting). So as to enhance the commercial value of forests.

(3) The progressively achieve the maximum sustained yield of timber, fire wood, pulpwood bamboos and other forests produce of marketable nature for industrial purposes, though riged protection and managing the forests on sound scientific principles.

(4) To meet the general demands of local population for fire wood, small timber, grazing and other forest produce, etc.

(5) To realise the aesthetic, recreational and educational values of the forest.

(6) To protect the fauna ; preserve and improve habitat.

(7) To maximise the financial returns per unit area from these forests by following sound silvicultural principles.

Section 2—Method of treatment to be adopted.

2. The treatment to be given to different forests differs and has been critically discussed, and prescribed under respective working circles. The remaining subjects have been discussed under miscellaneous regulations.

Section 3—Working Circles, their areas and Distribution.

3. In accordance with objects of management detailed above the following working circles are constituted :

A. Self contained—

(1) The Teak plantation working circle.

(2) The Rehabilitation working circle.

(3) The Fuel (Reserve) working circle.

(4) The Protection working circle.

B. Over lapping—

(1) The Bamboo working circle.

(2) The Silk cotton working circle.

(3) The Minor Forest Produce working circle.

4. The detailed constitution of each working circle is given in the concerned chapter. The area wise detail of each R.F. and R.L. block into various working circle is given in appendix No. XIII. A summary of the areas of various working circles by ranges is given below :—

Serial number and name of the working circle.	*Ayyalur.*	*Periyakulam.*	*Bodi.*	*Kannivadi.*	*Palani.*	*Thandigud.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Self contained :							
1 The Teak Plantation working circle	..	52.39	..	151.19	195.82	..	399.40
2 The Rehabilitation working circle	13,471.22	14,045.78	23,878.78	14,037.55	8,428.44	4,154.01	78,015.78
3 The Fuel (Reserve) working circle	15,540.97	..	..	..	..	..	1,540.97
4 The Protectjon working circle	..	7,072.57	..	4,426.35	13,042.95	3,250.64	27,892.51
Total ..	15,012.19	21,170.74	23,878.78	18,615.09	21,667.21	7,404.65	107,748.66
B. Over lapping :							
5 The Bamboo working circle	..	12.39	..	3,706.00	13,126.19	..	16,844.58
6 The Silk Cotton working circle	..	210.72	189.16	333.61	4.04	..	729.53
7 The Minor Porest Froduce working circle	15,012.19	21,170.74	23,878.78	18,615.09	21,667.21	7,404.65	107,748.66

Section 4.—Period of Plan.

5. The plan has been prepared for the period of 10 years from 1984-85 to 1993-94 and comes into Force from 1st April 1984. Wherever possible prescription beyond 10 years havebeen given.

Section 5.—Reconstitution of Ranges.

6. Consequence to trifurcation of Madurai North division into Dindigul, Kodaikanal and Theni Division, two new Ranges named Thandigudi and Periyakulam have been created with head quarters at Thadiankudisi and Periyakulam, respectively. This will help better protection and management of the forests.

CHAPTER II

The Teak Plantation Working Circle.

Section 1—General Constitution of the Working Circle

7. This working circle includes all the existing teak plantations and the areas proposed for conversion into teak crop during the plan period. The failed teak areas which have been found unsuitable for teak have been excluded. The stunted plantations of Ailanthus excelasa and ceiba pentandra plantations are also included for conversion.

8. Area now proposed for planting under this working circle contain only poor growth of mixed deciduous forest type.

Section 2—Special objects of management :

9. In addition to general objects, the special objects of management under this working circle shall be :—

(i) to increase the forest resources in commercial timber by replacing the existing poor stock with teak by artificial methods.

(ii) to produce small and large size timber to meet local demands.

Section 3—Analysis of the crop :

10. The forests allotted to this working circle are mixed deciduous type of poor quality. The soil is red loam and well drained. Topography of Area is with gentle slope and situated in sheltered pockets of small valleys.

11. Teak plantations, raised in the past, are quite satisfactory except in Bodi North Hills (Pudukulam) and Pambar R.F. in Bodi Range. Teak plantations raised in Vilancombai and Manjalar blocks are good and may corresponds to all India quality I/II as far as girth is concerned. Teak in other areas may correspond to All India III/IV quality.

Section 4—Area and Allotment :

12. Total area of working circle is 399.40 ha. It has been divided into two felling series viz., Timber series and Pole series depending on final produce to be obtained. Areas under timber series are good and felling under all India I/II quality class as far as the girth attainment is concerned. The former consists of good sites and will be managed to yield timber whereas the later shall yield mainly teak poles due to comparatively poor site quality.

13. The present condition of the Existing Teak Plantations are converted as Timber series and pole series as followes :—

Statement showing the description of the existing teak (timber series).

Serial umber.	*Range.*	*Name of plantation and location.*	*Year of formation.*	*Area. in Hectares*	*Description of plantations.*	*Present condition.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Bodi ..	Manjalar ..	1937–38 ..	0.80	Well stocked plantation, site is good level, no records available.	Good. Average height 25m Average Girth 133m
			1938–39 ..	0.90	Well stocked plantation, soil is alluvial, needs silvicultural thinning.	Good. Average height 25m Average Girth 108 cm.
			1939–40	1.04	Sucessful plantation and quality stocked.	Good. Average height 24 m Average Girth 128 cm.
			1941–42	0.81	Well stocked plantation, due for thinning	Good. Average height 20 m Average Girth 111 cm.
			1942 43	1.10	Well stocked plantation due for third thinning.	Good. Average height 18 m Average Girth 104 cm.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Periyakulam	Manjalar	1943–44	0.90	Over stocked plantation.	Good. Average height 15 m Girth 70 cm.
			1944–45	0.90	Over stocked plantation.	Good. Average height 15m Average Girth 76.5 cm.
			1945–46	0.90	Successful plantation.	Satisfactory. Average height 30 m Average Girth 77 cm.
			1946–47	0.81	Stocking is good, growth is not encouraging, site is poor.	Satisfactory. Average height 9 m Average Girth 62.5 cm.
			1947–48	1.00	Over stocked plantation, soil alluvial, site gentle slope.	Good. Average height 18 m Average Girth 86 cm.
			1948–49	0.80	Well stocked successful plantation, site quality good.	Good. Average height 17 m Average Girth 90.9 cm.
			1962–63	2.43	Well stocked plantation, site gentle slope due for thinning.	Good. Average height 15 m Average Girth 74 cm.
II	Palani	Velancombai	1870–71 / 1937-38	1.80	This plantation was originally raised in 1870, felled in 1936-37. The Existing crop is coppicing origin. Density of crop is poor and miscellaneous i.e. Albissia lebbek, Pterocarpus marsupium and Melia dubia are found in most of the area.	Growth of teak is fairly satisfactory.
			1937-38	1.60	The plantation has raised in 1937 by stump planting. No record of thinnings is available ft. needs final Agricultural thinking	Growth is very good. Average height 32 m Average Girth 154.7 cm.
			1938-39--	1.40	This plantation is also well stocked and needs thinning.	Good.
			1939-40	1.52	Raised by stump planting, over stocked, needs silvicultural thinning.	Growth good. Average height 28.5 m. Average Girth 140 cm.
			1940-41	2.60	Raised by stump planting, over-stocked, needs silvicultural thinning, Dalbergia latifolia and pterocarpus Marsupium also found.	Good.
			1941-42	1.70	Raised stump planting, over stocked, needs silvicultural thinning.	Good. Average height 29 m Average Girth 115 m.
			1957-58	5.20	Raised by stump planting, stumps obtained from Mettupalayam, well stocked. Third thinning is over due.	Satisfactory. Average height 20 m Average Girth 55 cm.

Note.—*Good.*—Where mean annual increament for Girth is over 2.5 cm. with clean bole.

Satisfactory.—Where mean annual increment for Girth is between 2.00 cm. 2.5 cm. with clean bole.

Poor.—Where mean annual increament for Girth is below 2 cm. with bramchybale.

14. Statement showing the description of the Existing Teak (Pole series) plantations in Dindigul Division.

Serial number.	*Range.*	*Name of plantation and location.*	*Year of formation.*	*Area in Hec.*	*Description of plantation.*	*Present condition.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Kannivadi	Karuvep-pillai odai	1960-61	10.21	Raised by stump planting, more than half of the area shows very poor growth. Only along the river the growth is good. Over due for 3rd thinning.	Satisfactory. Average height 15 m. Average Girth 50 cm.
2			1961-62	10.62	Over stocked and successful planta-tion, 2nd thinning done in 1981. Over due for 3rd thinning.	Good. Average height 12 m. Ave-rage Girth 44 cm.
3			1962-63	8.50	Crop is good towards the river side and shows poor growth towards hilly tract. Over due for thinning.	Satisfactory. Average height 13 m. Ave-rage Girth 41.1 cm.
			1965-66	19.80	Well stocked planta-tion, raised by stump planting, growth is not uni-form.	Satisfactory. Average height 8.5 M. Average Girth 37.5 cm.
			1966-67	20.20	Over stocked planta-tion, growth not uniform, 2nd thinning not done.	Average height 7 m Average Girth 26.6 cm.
6			1967-68	8.10	Over stocked planta-tion, 2nd thinning not done poor site quality.	Poor. Average height 4 m Average Girth 26 cm.
			1968-69	8.90	Well stocked planta-tion, site with gentle slope, 2nd thinning done in 1979.	Good. Average height 9 m, Average Girth 40 cm.

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NOTE.—*Good.*—Where mean annual increament for Girth is over 2.5 cm. with clean bale.

Satisfactory.—Where mean annual increament for Girth is between 2.00 cm. to 2.5 cm. with clean bale.

Poor.—Where mean annual increament for girth is below 2 cm with branchybale.

15. The distribution of area is as below :

Felling series.	*Block.*	*Area already planted up with teak* in hec.	*Area now proposed.* in hec.	*Total.* in hec.
(1)	(2)	(3)	(4)	(5)
Timber felling series	I. Velancembal ..	15.82	180.00	195.82
	II. Manjalar	12.39	40.00	52.39
Pole felling series	I. Karuveppilai odai ..	111.19	40.00	151.19
	Total	139.40	260.00	399.40

Section 5—Method of Treatment :

16. The question of silvicultural system does not arise at present since the object is to convert low quality mixed forests into valuable teak forest by artificial planting. For this purpose the annual planting areas will be clearfelled and planted up with teak as prescribed in section 9.

17. Plantations raised in the past shall be tended suitably. Tending operations will consist of cleanings and thinnings on a time schedule.

18. *Treatment of Bamboo.*—The Bamboo will be encouraged under older teak plantations so as to form a second story. Therefore, Bamboo will be introduced artificially under teak after 2nd mechanical thinning in suitable localities. After its establishment it will be worked under the prescriptions of Bamboo working circle.

19. *Disposal of Slash.*—All slash, after clearfelling of planting area, will be burnt in the field.

20. *Rotation.*—Rotation is only of theorotical importance, however, following rotations are fixed for early conversion of area.

21. *Timber series.*—The growth data shows that teak will grow to girth of 150 cms. in about 50 to 55 years. Therefore, giving allowance of 5 years for uniform development of crop rotation of 60 years is fixed.

22. *Pole series.*—In these areas the teak may fall into IVth All India quality teak. There is no appreciable girth increments. The plantations at age of 20 to 25 years, shows, girth of about 60 Cms. and less. Therefore, it observed that there may not be any further girth increment after age of 40 years and by that time girth of about 80–90 Cms. might have been achieve Therefore rotation of 40 years is fixed to harvest the poles since timber may not be obtained even after retaining the crop beyond the age of 40 years.

Section 6.—Choice of species :

23. Teak is the principle species and pure teak plantations will be raised other valuable species, such as Rosewood will be retained. Bamboo will be encouraged to form a second story and if necessary it will be introduced artificially.

Section 7.—Regulation of yield :

24. The question of yield does not arise since no plantations will come for final felling during the plan period. Any yield of timber and fuelwood that may be obtained from clearfelled area is incidental and will vary from year to year. However, the yield may be regulated by area. Yield from thinnings will also vary from year to year due to difference in area and in stocking in the older plantations.

Section 8.—Method of Executing Fellings.—

25. *Harvesting Agency.*—All operations in this working circle will be carried out departmentally except as provided for in paragraph 27—28.

26. The annual area for planting will be surveyed and demarcated before the end of December and saleable material felled before March.

27. Ceiba pentandra and Ailanthus excelsa areas coming for planting, will be sold standing is open auction, a year in advance of planting. It must be ensured that contractor vacate the field by end of March of year of planting. If there is no demand for standing crop, it will be felled departmentally and sold in public auction. In specific cases where there is demand from wood based Industries or approved Labour or Tribal Co-operative Societies allotment of standing crope may be after observing the rules and others in force.

28. Similarly the Eucalyptushybrid areas be handed over to company for working.

29. None of the teak plantations will be coming for felling during the currency of this plan.

Section 9—Sequence of operations.—

30. The planting coupes have been laid out on the map. The coupe for planting will be taken up in the following sequence :—

Serial number and name of the plantation block.	*Year of raising.*	*Coupe number.*	*Area in hectare.*	***Location and remarks.***
(1)	(2)	(3)	(4)	(5)
		TIMBER SERIES.		
I. Periakulam range.—				
1 Manjalar Teak planting block	1984—85	I	4.00	Palani hills Southern slope East R.F. 1968 and 1971 of Silk cotton plantations are converted into teak.
	1985—86	II	4.00	
	1986—87	III	4.00	
	1987—88	IV	4.00	
	1988—89	V	4.00	
	1989—90	VI	4.00	
	1990—91	VII	4.00	
	1991—92	VIII	4.00	
	1992—93	IX	4.00	
	1993—94	X	4.00	
			40.00	
II. Palani Range—				
1 Palar River Teak planting Block ..	1984—85	I	10.00	Palani hills northern slope west R.F. 1959 , 1960, 1961, 1962, 1963, 1964 and 1965. Soft wood plantations are converted into teak.
	1985—86	II	10.00	
	1986—87	III	10.00	
	1987—88	IV	10.00	
	1988—89	V	10.00	
	1989—90	VI	10.00	
	1990—91	VII	10.00	
	1991—92	VIII	10.00	
	1992—93	IX	10.00	
	1993—94	X	10.00	
			100.00	
2 Porandalar Teak planting Block ..	1984—85	I	8.00	Palani hills northern slope West R.F.
	1985—86	II	8.00	
	1986—87	III	8.00	
	1987—88	IV	8.00	
	1988—89	V	8.00	
	1989—90	VI	8.00	
	1990—91	VII	8.00	
	1991—92	VIII	8.00	
	1992—93	IX	8.00	
	1993—94	X	8.00	
			80.00	

Serial number and name of the plantation Block.	Year of raising.	Coupe number.	Area in hectare.	Location and remarks.
(1)	(2)	(3)	(4)	(5)
		POLE SERIES.		
III. Kannivadi Range.—				
1 Karuveppilai Odai Teak planting Block	1984—85	I	4.00	Palani hills northern slope East R.F. 1963 E.H. plantation and 1976 Silk cotton plantations are converted into Teak.
	1985—86	II	4.00	
	1986—87	III	4.00	
	1987—88	IV	4.00	
	1988—89	V	4.00	
	1989—90	VI	4.00	
	1990—91	VII	4.00	
	1991—92	VIII	4.00	
	1992—93	IX	4.00	
	1993—94	X	4.00	
			40.00	

Section 10—*Method of forming plantations* :—

31. *Clearing the Jungle growth.*—All jungle growth will be clearfelled and burnt after drying by end of May. Wherever necessary uprootal of unwanted stumps should also be done.

32. *Aligning.*—Aligning and stacking will be done at an espacement of 2m x 2m by end of June.

33. *Planting.*—One year old teak stumps prepared from nursery raised seedlings will be planted in crowbar holes after first monsoon shower in months of July/August.

34. *Nursery Technique.*—Standard beds of 10 x 1 x 0.30 metres will be raised. One cart load of formyard manure will be added to each bed and mixed well with soil. About 8-10 kgs. of pretreated quality teak seeds will be sown per bed, by month of July of previous year. The good quality Teak seeds may be got from Genetics Division, Coimbatore, The stumps measuring about 23 cms. long (8 cm. stump and 15 cm. root portion) and about thumb thickness at collar will be prepared for planting.

Section 11—*Subsidiary cultural operations.*—

35. *New plantation areas-weedings.*—At least three weedings will be given in the first year in month of August, October and December. Two weedings will be given in 2nd year in the months of July and October. In second year weeding, operations all climbers shall be out back and thorny species uprooted.

36. *Replacement of casualities.*—Casualities will be replaced after 20-25 days from the completion of planting.

37. *Cleanings.*—In the 3rd, 4th and 5th years after the year of formation, cleaning operations consisting of cutting climbers, interfering shrubs and bamboo cutting will be carried out. One operation in the month of September is sufficient.

38. *Timber series.*—Thinnings will be carried out at ages 6, 13, 21 and 36. The first two thinnings shall be mechanical and subsequent operations will be silvicultural thinnings. Mechanical thinnings will involve removal of plants in alternate diagonal rows.

39. The following table shows the number of stems per hectare to be retained after each thinnings :—

Name of thinning.	*Area at thinning (years.)*	*Number of stems per hectare after thinning.*
(1)	(2)	(3)
1st Thinning	6	1250
2nd Thinning	12	625
3rd Thinning	20	450
4th Thinning	40	225

40. The sequence in which thinnings will be carried out is given below :—

TIMBER SERIES.

Serial number and	*Year of plantation.*		*I Thinning*	*II Thinning*	*III Thinning.*	*IV Thinning*	*Remarks.*
(1)		(2)	(3)	(4)	(5)	(6)	(7)
I. Bodi Range—Manjalar Block :—							
1	1937	0.80	..	..	..	1984	Over due for thinnings. Since no thinning has been carried out. Hence, prescription.
2	1938	0.90	..	..	..	1984	
3	1939	1.04	..	..	..	1984	
4	1941	0.81	..	..	..	1984	
5	1942	1.10	..	..	..	1984	
6	1943	0.90	..	..	..	1984	
7	1944	0.90	..	..	..	1984	
8	1945	0.90	..	..	..	1985	
9	1946	0.81	..	..	..	1986	
10	1947	1.00	..	..	..	1987	
11	1948	0.80	..	..	..	1988	
12	1962	2.43	..	..	1984	2002	
13	1984	4.00	1990	1996	..	..	Area proposed to raise Teak during the plan period has been provided for thinning.
14	1985	4.00	1991	1997	..	..	
15	1986	4.00	1992	1998	..	..	
16	1987	4.00	1993	1999	..	..	
17	1988	4.00	1994	2000	..	..	
18	1989	4.00	1995	2001	..	..	
19	1990	4.00	1996	2002	..	..	
20	1991	4.00	1997	2003	..	..	
21	1992	4.00	1998	2004			
22	1993	4.00	1999	2005			
II. Palani Range—Velancombai Block I :—							
1	1870—71 / 1937—38	1.80	..	..	..	..	
2	1937	1.60	..	..	..	..	
3	1938	1.40	..	..	..	1984	
4	1939	1.52	..	..	..	1984	
5	1940	2.60	..	..	..	1984	

II. Palani Range—Velancombai Block I—cont.

6	1941	1.70	..	..	..	1984	
7	1957	5.20	..	..	1977	1997	
8	1984	10.00	1990	1996	..	..	Area proposed to raised teak during this plan period has been provided for thinning.
9	1985	10.00	1991	1997	..	..	
10	1986	10.00	1992	1998	..	..	
11	1987	10.00	1993	1999	..	..	
12	1988	10.00	1994	2000	..	..	
13	1989	10.00	1995	2001	..	..	
14	1990	10.00	1996	2002	..	..	
15	1991	10.00	1997	2003	..	..	
16	1992	10.00	1998	2004	..	..	
17	1993	10.00	1999	2005	..	..	

II. Palani Ronge—Velancombai Block II.

18	1984	8.00	1990	1996	..	..	Area proposed to raise Teak during this plan period has been provided for thinning.
19	1985	8.00	1991	1997	..	..	
20	1986	8.00	1992	1998	..	..	
21	1987	8.00	1993	1999	..	..	
22	1988	8.00	1994	2000	..	..	
23	1989	8.00	1995	2001	..	..	
24	1990	8.00	1996	2002	..	..	
25	1991	8.00	1997	2003	..	..	
26	1992	8.00	1998	2004	..	..	
27	1993	8.00	1999	2005	..	..	

41. *Pole series.*—Thinnings will be carried out at ages of 6, 12 and 20. First two thinnings will be mechanical and subsequent thinnings will be of silvicultural nature. The following statement shows number of stems to be retained after each thinnings.

Name of thinning.	*Age at thinning. (years.)*	*Number of stems per hectare after thinning.*
(1)	(2)	(3)
1st thinning	6	1,250
2nd thinning	12	625
3rd thinning	20	500

42. The sequence in which thinnings will be carriedout is given below :—

POLE SERIES.

Serial number and Year of plantation.		Area in hectares.	I Thinning	II Thinning	III Thinning	IV Thinning	Remark
(1)		(2)	(3)	(4)	(5)	(6)	(7)
I. Kannivadi Ranges—Kariveppilai Odai Block.—					GB		
1	1960	10.11	..	..	..	1984	....
2	1961	10.52	..	..	..	1984	....
3	1962	8.50	..	..	..	1984	....
4	1965	19.83	..	..	..	1985	....
5	1966	20.23	..	..	..	1986	....
6	1967	20.00	..	..	..	1987	....
7	1968	22.00	..	..	..	1988	....
8	1984	4.00	1990	1996	..	..	Area proposed to raise Teak during this plan period has been provided for thinning.
9	1985	4.00	1991	1997	..	..	
10	1986	4.00	1992	1998	..	..	
11	1987	4.00	1993	1999	..	..	....
12	1988	4.00	1994	2000	..	..	
13	1989	4.00	1995	2001	..	..	
14	1990	4.00	1996	2002	..	..	
15	1991	4.00	1997	2003	..	..	
16	1992	4.00	1998	2044	..	..	
17	1993	4.00	1999	2005	..	..	

43. *Tending of old plantations.*—Thinnings will be carriedout as provided above. All climbers will be cut down before thinning. The epiphytes semi-parasites and total parasites shall also be removed from the trees.

Section 12.—*Other regulations.*

44. *Fire protection.*—All teak plantations will be specially protected from fire by clearing 3 metre wide line all around the plantation.

45. *Regulation of grazing.*—All plantations will remain closed to grazing for a period of 5 years including year of formation.

46. *Fencing.*—To meet the above objective, all the new plantations to be raised during th period of plan shall be fenced with 3 barbed wire fence strained. The fence will be maintained for 5 years.

46. (*a*) The control book, record of works and in control journals shall be maintained. Necessary forms appended in Appendix No. XXV of Part III.

42. The sequence in which thinnings will be carriedout is given below :—

POLE SERIES

Serial number and Year of plantation.		Area in hectares.	I Thinning	II Thinning	III Thinning	IV Thinning	Remarks
(1)		(2)	(3)	(4)	(5)	(6)	(7)
I. Kannadi Ranges—Karuvappilai Odai Block.—							
GB							
1	1960	10.11	..	..	..	1984	....
2	1961	10.52	..	..	..	1984	....
3	1962	8.50	..	..	..	1984	....
4	1965	19.83	..	..	..	1985	....
5	1966	20.23	..	..	..	1986	....
6	1967	20.00	..	..	..	1987	....
7	1968	22.00	..	..	..	1988	....
8	1984	4.00	1990	1996	..	..	Area proposed to raise Teak during this plan period has been provided for thinning.
9	1985	4.00	1991	1997	..	..	
10	1986	4.00	1992	1998	..	..	
11	1987	4.00	1993	1999	..	..	....
12	1988	4.00	1994	2000	..	..	
13	1989	4.00	1995	2001	..	..	
14	1990	4.00	1996	2002	..	..	
15	1991	4.00	1997	2003	..	..	
16	1992	4.00	1998	2044	..	..	
17	1993	4.00	1999	2005	..	..	

43. *Tending of old plantations.*—Thinnings will be carriedout as provided above. All climbers will be cut down before thinning. The epiphytes semi-parasites and total parasites shall also be removed from the trees.

Section 12.—*Other regulations.*

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46. *Fencing.*—To meet the above objective, all the new plantations to be raised during th period of plan shall be fenced with 3 barbed wire fence strained. The fence will be maintained for 5 years.

46. (a) The control book, record of works and in control journals shall be maintained. Necessary forms appended in Appendix No. XXV of Part III.

CHAPTER III.

THE REHABILITATION WORKING CIRCLE.

Section 1.—General Constitution of the working circle.

47. This working circle consists of all these forests which have been worked for fuel extraction in the past in the process have been badly degraded in quality and stocking. The Miscellaneous and other fuel wood plantation raised under various schemes are also included in this working circle.These plantations will be protected and no plantations is prescribed for felling during plan period. The plantations raised by Vaigai Soil Conservation Division will also be maintained.

Section 2.—Special objects of Management.

48. (*i*) To reclothe these degraded forests with suitable cover species to check further degradation of sites and soil conservation wherever possible.

49. (*ii*) To restock with suitable species to increase productivity and commercial value of these forests.

50. (*iii*) Which are not suitable for planting, to rehabilitate these forest areas by giving complete rest from any type of working.

Section 3.—Division of the Area.

51. This working circle will comprise of all degraded forests including existing successful plantations raised in the past decades under the different afforestation schemes of planting fuel species and also plantations proposed to be raised during the period of this plan. The list of plantation raised in the past by regular division and by soil conservation division are given in Appendix No. XIV and XIV-A. The list of Reserved forests and Reserved lands included in the working circle is given below :—

Name of the Range. (1)	*Name of the R. F. and R. L.* (2)	*Area in Hectare.* (3)
I. Ayyalur Range	1 Mudi Malai R.F.	1,794.92
Do.	2 Ayyalur R.F. (Pillaiyarnatham)	215.10
Do.	3 Panjan Thangai R.F.	2,891.77
Do.	4 Thannirkaradu R.F.	389.63
Do.	5 Sundamalai R.F.	165.76
Do.	6 Pannamalai R.F.	469.78
Do.	7 Thoppasamimalai R.F.	3,453.06
Do.	8 Moongil Karadu R.F.	710.79
Do.	9 Rangamalai R.F.	411.78
Do.	10 Karumalai R.F.	826.20
Do	11 Vandamalai R.F. and Rangamalai R.F.	691.22
Do.	12 Kaluvadimalai R.F.	256.37
Do.	13 Ideyakottai R.F.	1,195.84
	Total	13,471.22
II. Periyakulam Range	1 P.H.S.S., R.F., Varattarkanal and Iruttar kanal Black (Part).	1,158.29
Do.	2 Amburuvi	80.00
Do.	3 Karungalthonimedu	1,134.47
Do	4 Adukkam R.F.	2,277.99
Do.	5 Agamalai and Thambiran kanal R.F.	1,434.78
Do.	6 Murugamalai R.F.	2,794.25
Do.	7 Bodi North R.L. (Part)	5,166.00
	Total	14,045.78

II. Bodi Range	1 Thevaram R.L.	1,715.60
Do.	2 Kottagudi R.L.	4,267.00
Do.	3 Bodi West R.L.	4,199.37
Do.	4 Bodi North R.L. (Part)	13,278.33
Do.	5 Valkaradu R.F.	238.85
Do.	6 Perumalkoil karadu	179.63
	Total	23,878.78
IV. Kannivadi Range	1 Palani Hills Northern slopes (Part)	821.05
Do.	2 Thevarmalai R.F.	385.65
Do.	3 Kannivadi Block I.R.L.	462.84
Do.	4 Kannivadi Block II R.L.	7,278.41
Do.	5 Palani Hills Northern Slopes	3,63.198
Do.	6 Senkattampatti	725.99
Do.	7 Chatrapatti R.F.	496.42
	Total	14,037.55
V. Palani Range	1 P. V. Valley R.F.	60.00
Do.	2 Oliyanathu Odai	40.00
Do.	3 Karadikuttu	559.23
Do.	4 Periampatti	410.20
Do.	5 Andipatti R.F.	5,155.42
Do.	6 Ayakudi R.F. (Part)	2,203.59
	Total	8,428.44
VI. Thandikudi Range	1 Maruthanadiar	1,983.39
Do.	2 Palani Hills Southern slopes R.F. (Part)	1,326.26
Do.	3 Mankaradu R.F.	844.36
	Total	4,154.01

ABSTRACT.

Ayyalur Range	13,471.22
Periyakulam Range	14,045.78
Bodi Range	23,878.78
Kannivadi Range	14,037.55
Palani Range	8,428.44
Thandikudi Range	4,154.01
Total	78,015.78

Section 4.—Analysis of the Crop.

52. Type of forests and character of their vigitation has already been dealt with in Chapter II Part I under forests. Mainly the forest areas included under this circle are degraded forests of thorny scrub jungle with small area comprising of Dry mixed deciduous type.

53. The areas proposed to raise plantations with degraded forests suitable for planting and the areas for artificial regeneration has been decided with reference to the existing growth, terrain edaphie and other factors. While predominently rocky, bouldary and gravelly sites have been excluded.

Section 5.—Method of Treatment.

54. *Silvicultural System.*—Natural forests shall be given complete rest. Only dead and drying trees shall be removed if necessary and economical.

55. For raising plantations, no system is called for. Area to be regenerated shall be clearfelled of all jungle growth and planted up artificially with useful species.

56. The silvicultural system shall be adopted to clearfell the existing useless thorny jungle scrub and planting the area with useful, suitable species.

57. *Choice of Species.*—It is necessary to plant drought hardy and fairly fast growing thorny species, like Acacia planifronss, Acacia ferrugine and Acacia leucophloea are more suitable. Intermixed with small proportion of 5 per cent species like Tamarind, Neem shall be planted. Acacia planifrons is extremely drought resistant and least browsed by cattle.

58. *Rotation.*—The rotation is left as open question to be decided at the subsequent revisions of the plan since no yield data is available. However rotation of 30 years seems judicious, considering the purpose of introducing these species for water and soil conservation. Though, of late, Acacia planifrons has been declared as suitable for pulping but the shorter rotation will defeat the purpose for which these species is raised. Moreover, shorter rotation will add to soil erosion besides degradation of site. It is presumed that purpose of soil and water conservation will be met if these plantations are allowed to continue upto 30 years. Therefore rotation of 30 years is fixed.

Section 6.—Method of Execution.

59. The areas are highly denuded due to mismanagement in the past period and due to the excessive interference of biotic factors. Hence the method of treatment to be adopted consist in clearing the existing growth and restoring the area with suitable species by artificial regeneration. The compacted soil does not permit the precious rain water to percolate and make available for free growth with deeper roots. The importance of intensive planting technique is therefore need to be emphasized.

60. *Survey and demarcation.*—Survey and demarcation of the coupe for regeneration will be done in December of the previous year of planting.

61. *Site preparation.*—Clearfelling of the growth whether departmentally or through the agency of contractors should be completed before the end of December of the previous years and uprootal should be done before the end of February.

62, *Alignment and planting.*—The regeneration area shall be aligned and marked departmentally, at an espacement of 3.5m x 3.5m during the month of March and April of the year of planting pits of the size 30cm cube will be dug. Planting will be done in the first rain with proper organisation of labour and should be completed within the short time.

63. *Soil and moisture conservation-measures*—Many areas are prescribed on hilly slopes, it is necessary to provide soil and moisture conservation measures. Staggered trenches of 2m x .5m x.3m shall be dug across the slope. The dug up soil should be piled up on uphill side of trench.

64. After completion of the weeding and soil work, semicircular bunds will be provided. While construction of semicircular bunds, bigger stones should be arranged at the bottom and small stones on the top, periphery and they shall be well packed to avoid being washed off or dismantled during the rains. This will give effect in preventing erosion and in helping the accumulation of soil on the base of the plants.

65. *Fencing.*—The plantation should be fenced with brushwood to 1 metre height with width of 1 metre at the base, from the materials obtained from the clearing. The fence may be maintained during the second year also.

66. *Nursery Technique.*—The nurseries should be raised nearer in planting site, with assured water facilities. Seeds should be dibbled, in the month of January at least, in 10m x 20cm polythene bags filled with good loamy soil. As 4 to 6 months old container seedlings are proposed for planting. Watering should be done daily till germination and afterwards, watering should be done for in container plants as follows : (*i*) watering daily twice for days. (*ii*) watering daily once for 60 days ; (*ii*) watering once in alternate days for 120 days or till planting. When the seedlings attain 45 cm height, the container plants should be frequently shifted at least once in a fortnight and graded properly. Grading helps in the transport of proper and better seedlings for earlier planting and providing sufficient time for the smaller seedlings to pickup before they are planted out subsequently.

67. *Tending operations.*—In the second year, casualites will be replaced on the on set of monsoon. Container seedlings of the 6 months old are to be planted. One knife weeding and two soil working may be done in the second year maintenance. In third year also one soil working shall be given along with knife weeding if necessary. The trenches if dugout shall be desilted and deepened.

Section 7.—Tabular-statement of Planting Programme.

68. The regeneration coupes are clearly marked on the accompanying maps and the planting work should be done in the order of sequence marked in the map. Any work not taken up in the prescribed year, should be taken up in the succeeding year in the same sequence.

69. The planting programme prescribed as follows :—

Name of the planting series.	*Planting Block numbers.*	*Coupe numbers.*	*Per Year.*	*Area.*	*Location.*
(1)	(2)	(3)	(4)	(5)	(6)
I. *Ayyalur Range*					
			HACTARES.	HACTARES.	
1 Vedasandur Rehabilitation planting series.	I	1 to 5	20	100	Karumalai R.F.
		6 to 10	20	100	Rangamalai R.F.
	II	1 to 7	25	175	Idaiyakottai R.F.
		8 to 10	25	75	Karumalai R.F.
2 Ayyalur Rehabilitation planting series.	I	1 to 10	30	300	Thoppasamimalai R.F.
	II	1 to 10	25	250	Do.
	III	1 to 10	20	200	Do.
	IV	1 to 10	20	200	Mudimalai R.F.
	V	1 to 10	10	100	Do.
	VI	1 to 10	20	200	Pillongannatham R.F.
	VII	1 to 10	20	200	Kaluvadimalai R.F.
				1,900	
II. Periyakulam Range :					
1. Periyakulam Rehabilitation planting series.	I	1 to 7	12	84	Adukkam R.F.
		8 to 10	12	36	Karungalthonimedu R.F.
	II	1 to 10	8	80	Amburuvi
	III	1 to 10	20	200	Bodi North R.L.
				400	
III. Bodi Ranze :					
1. Bodi Rehabilitation planting series.	I	1 to 10	20	200	Bodi North R.L.
				200	

(1)	(2)	(3)	(4)	(5)	(6)
				(HECTARES).	
IV. Kannivadi Range :					
1. Virupakshi Rehabilitation planting series.	I	1 to 10	20	200	P.H.N.S.E. R.F.
2. Kannivadi Rehabilitation planting series.	I	1 to 10	20	200	Kannivadi R.L. Block I.
	II	1 to 10	20	200	Do.
	III	1 to 10	15	150	Thevarmalai R.F.
				750	
V. Palani Range :					
1. Palani Rehabilitation planting series.	I	1 to 6	10	60	P.V. Valley R.F.
		7 to 10	10	40	Oliyanthuodai R.F.
				100	

ABSTRACT.

Name of the Range. (1)	*Name of the Rehabilitation planting series,* (2)	*Number of planting Block.* (3)	*Total area in hectares.* (4)
1. Ayyalur	(i) Vedasandur Rehabilitation planting series.	2	450.00
	(ii) Ayyalur Rehabilitation planting series.	7	1450,00
2. Periyakulam	(i) Periyakulam Rehabilitation planting series.	3	400.00
3. Bodi	(i) Bodi Rehabilitation planting series ..	1	200.00
4. Kannivadi	(i) Virupakshi Rehabilitation planting series	1	200.00
	(ii) Kannivadi Rehabilitation planting series	3	550.00
5. Palani	(i) Palani Rehabilitation planting series ..	1	100.00
		18	3,350.00

Section 8—*Other Regulations.*

70. *Closure to grazing.*—All regeneration areas will be closed to grazing for a period of 5 years including the year of formation.

71. Dibbling of palmyrah nuts at 4 metre along the boundary is prescribed, so as the palmyrah lines will serve as distinguishable boundary in the year and plantations.

72. *Control.*—The Control forms should be posted up to date regularly at the end of each financial year. Control journal and Record of works are appended in appendix Nos. XXIV and XXV.

CHAPTER IV.

The Fuel Working Circle (Reserve)

Section 1—General Constitution.

73. This working circle comprises only those thron forests which are capable of yielding around 20 tonnes of fuel wood per hectare and show healthy stocking. Most of the depleted areas of previous plan have been excluded from this working circle and transferred to Rehabilitation working circle. Most of the outer slopes of the hills of the Division have been worked in the past decades and there has been no sufficient regrowth for future exploitation. Out of 18 series of previous working plan only 2 series are included under this working circle.

74. The fuel working circle as constituted during the previous plan period under revision covered an area of 13,045.11 hectares consisting 18 fuel felling series as follows :—

Serial number.	*Name of the Fuel series.*	*Area in Hectares.*	*Location.*
(1)	(2)	(3)	(4)
I. Ayyalur Range :			
1	Combai Fuel series	849.70	Lies in Panjanthangi R.F.
2	Kaluvadimalai	884.01	Pillaiyarnatham and Panjanthangi
3	Mudumalai	735.39	Mudumalai R.F.
4	Manjulkonadu	657.55	Manjilkonadu R.F.
5	Panjanthangi	650.50	Panjanthangi and Sundamalai
6	Soorimalai	688.90	Soorimalai and Sundamalai
7	Sundamalai	889.90	Mudumalai and Panjanthangi
8	Pillaiyarnatham North	882.84	Pillaiyarnatham R.F.
9	Pillaiyarnatham South	667.97	Pillaiyarnatham R.F.
II. Bodinayackanur Range :			
10	Adukkam	635.35	Pillaiyarnatham R.F.
11	Amburuvi	685.12	
12	Iruttar	531.34	
13	Pambar	796.41	
III. Kannivadi Range :			
14	Chatrapatty	616.62	Northern slope East (B.III) Vennilai North slope East R.F.
15	Virupakshi	836.19	North slope East (B. III) Northern slope. This fuel series has closed to working as per Chief Conservator of Forests' Reference No. 20452/73K4, dated 18th March 1974.
IV. Palani Range :			
16	Kudiraiyar	609.41	North slope West R.F.
17	Palani	612.06	P.V. Valley R.F.
18	Rettiyambadi	815.79	Rettiyambadi Ex-zamin Forest Southern slope.
	Total ..	13,045.11	

75. Regeneration and stocking of felled coupes by natural coppice growth have mostly failed. Growing stock is degraded due to over grazing, illicit browsing, thefts, collection of manure leaf, etc.

Section 2—Special objects of managements.—

76. Special objects of management under this working circle will be :—

(1) To produce firewood and small timber to meet local demands.

(2) To regenerate the coupes mainly through coppice, supplemented with cultural operations and gap planting.

Section 3—Division of the Area.

77. *Area.*—The total area of the working circle prescribed in the plan is 1,540.97 hectares falling in Pillaiyarnatham Reserved Forest as follows :—

Pillaiyarnatham North series	.. ..	881.82 hectares
Pillaiyarnatham South series	.. ..	659.15 ,,
Total	..	1,540.97 ,,

78. However, these series should be worked only after getting prior approval of the Government.

Section 4—Analysis and valuation of the crop.

79. The areas included under this working circle exhibits Carnatic Umbrella thorn Forest type (6A/C2) and main species found are Albizzia amara and Acacia planifrons.

80. The general growth of crop is good at in foot hills and on the slopes the growth is comparatively poor. From the past records and the present condition of crop it is assessed that 20 tonnes of firewood can be obtained from each hectare at age of fellings.

81. *Stock maps.*—A new set of stock maps have been prepared for forest type and appended to the plan.

Section 5—Method of treatment.

82. *Silvicultural system.*—The coppice with reserves system will be followed. The trees to be reserved against felling are Tamarind, Neem, Sandal and Pungam, they being minor forest produce yielding trees. However, the dead and unyielding trees may be felled.

83. *Rotation.*—The rotation of 30 years is fixed in light of conclusive indication from past research that mean annual increment for almost all fuel species culminate as at age of 25 years to 30 years. More over the area allotted for working is of better quality and the stocking may not be depleted by adopting the above rotation.

84. *Regulation of yield.*—Yield will be regulated entirely by area.

85. *Annual Coupes.*—The Annual coupes in each felling series has been marked on 4"—1 mile S.I. Sheets accompanying the plan.

86. Tabular statement of Annual coupes, their area and sequence of fellings.

Serial number.	*Name of the series.*	*Year of felling.*	*Coupe Nos*	*Area in hrectar.*
(1)	(2)	(3)	(4)	(5)
Ayyalur Range :				
1	Pillaiyarnatham North series	1984–85	II	25.26
		1985–86	III	35.29
		1986–87	IV	26.71
		1987–88	V	32.87
		1988–89	VI	27.36
		1989–90	VII	34.80
		1990–91	VIII	25.90
		1991–92	IX	32.38
		1992–93	X	25.90
		1993–94	XI	26.55
	Total ..			293.02
2	Pillaiyarnatham South series	1984–85	II	25.10
		1985–86	III	19.27
		1986–87	IV	22.02
		1987–88	V	21.05
		1988–89	VI	29.47
		1989–90	VII	29.95
		1990–91	VIII	18.13
		1991–92	IX	21.05
		1992–93	X	19.83
		1993–94	XI	18.13
	Total ..			224.00

Section 6—Method of Executing fellings.

87. *Survey and Demarcation.*—The annual coupe coming for felling shall be surveyed and demarcated on the ground by clearing 3 metre wide lines and boundary stone erected at each corner.

88. The correct area of the coupe will be computed from the sketch plotted on the basis of the survey. Any difference between the actual area and the area as computed from the working plan map, if less than 5 percent of the working plan area will not be treated as a deviation to be ratified.

89. Each coupe will be divided into convenient number of sections, usually four, for proper check and control over fellings and extraction of materials. Section lines should be cleared to a width of 1½ metres.

90. *Reserve Trees.*—All the trees to be reserved should be marked, numbered and girth measured. A permanent record must be maintained coupe wise for each series.

91. The survey sketch showing the density of crop and distribution of reserved trees will be prepared before 31st December of previous year. The survey of the coupes will be checked by the District Forest Officer or by a Gazetted Assistant, according to the executive orders of the Chief Conservator of Forests in force.

92. *Arrear coupe and unworked areas in Coupe.*—In case any coupe remains unsold, it shall be put on sale in the next year. Even then if it remains unsold, it will be carried out to next rotation. If any portion of the coupes should remain unworked at the end of the lease period, such area will be surveyed, computed and offered for sale provided there in sufficient salable materials.

93. *Felling Rules.*—(1) The coupe shall be felled in orderly manner section by when the first or previous section has been felled completely. The sequence of felling for each section will be indicated, in the sketch accompanying the agreement.

(2) None of the reserve trees shall be felled. The list of reserved trees shall be handed over to the contrcator at the time of executing the agreement and his acknowledgement for receipt of the same obtained in the duplicate copy of the list and filed.

(3) Tree growth to a width of 20 metres on either side of the perennial streams shall not be felled.

(4) Felling should be clean and clsose to the ground by saw at height of 10 cm. from ground. Bark of the stool shall not be separated from the wood.

(5) Timber, converted from fellings in the coupe if any shall be kept at stump site until it is hammer marked and passed by the Range Officer.

(6) After felling and conversion, firewood should be stacked before transporting. The volume of each stack must be noted and by the Forest Guard. This should be checked by Forester periodically.

(7) Manufacture of charcoal inside the reserved forest shall not be permitted.

(8) The lessee shall be responsible for all illicit fellings and removals of forest produce from a belt of 20 chains width around the coupe.

(9) The contractor may be allowed to form extraction path at the foot of the hill only.

(10) The contractor or his authorised agent shall personally supervise the working of the coupe.

(11) The lesse shall supply on payment small timber and fuel in the manner and rates fixed by the District Forest Officer and incorporated in the agreement.

Section 7—Agency and Period of Harvest.

94. Harvesting and feeling will be through the Agency contractors Coupes will be sold in public auction by middle of February and all formalities completed before 31st of March.

95. The period of lease for each coupe will be for one year from 1st April to next 31st March. However, the lease periods are subject to change depending on the executive orders of the competent authority from time to time. No extension will be allowed ordinarily.

Section 8—Subsidiary Silvicultural Operations.

96. *Cutting back of Euphorbia Tirukallies and other Bushes.*—As soon as the contractor vacates the coupe all the thorny bushes and Tirukallies shall be cut back departmentally and removed out of the coupe. This operation should be over by May of the subsequent year of fellings.

97. No burning will be done in the coupe.

Section 9—Other Regulations.

98. *Demarcation of worked coupes.*—The limit of the worked fuel coupes should be demarcated with coupe stones at salient corners with details like member of felled coupe and year of working chiselled on them. One coupe stone planted at common corner of the worked coupes should exhibit the coupe number and year of working on the respective half of the stone slab.

99. *Grazing.*—All felled coupes shall be closed to grazing for a period of 5 years after the completion of working.

100. *Fencing.*—To achieve full protection from grazing each coupe will be barbed wire fenced towards foot of the hill and about 20 to 25 chains upto the hill. The line towards ridge need not be fenced. It will be a cattle proof fence consisting of 4 strands. This may be used at the end of 5th year. To keep the cost low wooden posts may be used obtained from the coupe itself.

101. *Yield Record.*—Each contractor will be required to furnish monthly accounts of removals of firewood and timber from the coupes not later than 10th of succeeding month. These accounts must be supported by the counterfoils of all permits issued by him.

102. To calculate yield, the following conversion factors may be adopted.

2 Cubic metres of stacked firewood	1 tonne
40 head loads of fuel	1 tonne
1.4 Cubic metre of Timber	1 tonne

103. *Control Maps.*—After completion of felling of the coupe and on receipt of the completion report, the worked area will be posted in the Control Map. This must be verified in the field by the District Forest Officer.

104. *Control Records.*—The Control records and Record of works shall be maintained by the District Forest Officer in the prescribed forms, appended with the

CHAPTER V.

THE PROTECTION WORKING CIRCLE.

Section 1—Genera Constitution.

105. This working circle comprises of all such forests, which due to indiscriminate exploitation and rampart grazing in the past, are unfit for any commercial exploitation and which have not been included under Rehabilitation working circle due to administrative reason. Other forests which needs to be unworked due to environmental, water, and soil conservation reasons are also included.

Section 2—General Character of the Vegetation.

106. A detailed description of the vegetation has been already dealt with in Chapter II. Generally, the crop is open, badly depleted, stunted, except sub-tropical evergreen pockets.

Section 3—Special Objects of Management.

107. The special objects of management will be :—

(1) To provide adequate protection and rest to already badly depleted forests in order to improve the growing stock.

(2) To preserve the sub-tropical evergreen forests based on environmental, water and soil conservation principles.

Section 4—Area and Allotment.

108. The total area of this circle is 26701.28 ha. The statement given below shows the forest blocks allotted to this circle with area :

Name of Range.	*Name of the R.F. and R.L.*	*Area in Hectare.*
(1)	(2)	(3)
Periyakulam Range	(1) Amburuvi R.F.	3463.86
	(2) Shengelvarayar R.F.	1,821.30
	(3) Pamber R.F.	1,639.81
	(4) Agamalai and Thambiran kanal R.F. (Thambiran kanal block)	147.60
		7,072.57
Kannivadi Range	(1) Vennilai R.F.	2,325.40
	(2) Kaneinkadu R.F.	1,009.72
	(3) Siruvatkadu R.F.	1,091.23
		4,426.35
Palani Range	(1) P. V. Valley R.F.	6,925.45
	(2) Oliyanuthu Odai	1,721.25
	(3) Kudiraiyar (Part)	4,344.53
	(4) Vilan Combai	51.72
		13.042.95

(1)	(2)	(3)
Thandikudi Range	(1) Kaduguthadi	149.33
	(2) Kallar, Ariyanuthu kanal, Komankavai kanal	1,275.20
	(3) Koviladi	138.81
	(4) Pambukallar	267.10
	(5) Kokkuparai	600.55
	(6) Umaiyar	197.00
	(7) Kodavanur	43.93
	(8) Kadavumalai R.F.	578.72
		3,250.64

ABSTRACT

Name of the Range.	*Area under protection working circle in hectare.*
(1)	(2)
1 Periyakulam Range	7,072.57
2 Kannivadi Range	4,426.35
3 Palani Range	13,042.95
4 Thandikudi Range	3,250.64
Total ..	27,792.51

Section 5—Method of Treatment.

109. *Silvicultural System.*—No fellings are prescribed. Hence no silvicultural system is involved. Only dead and dying trees to be extracted as measure of improving the crop. According to the availability of dead and decaying trees in limited R.F.s. prescriptions have been provided for working such R.Fs. only and the details are furnished in para 113. The rest of the Forest Blocks are given rest during the plan period.

110. *Rotation.*—Fixing of rotation is not called for since no commercial fellings are prescribed.

Section 6—Method of Executing Fellings

111. No fellings are prescribed under this working circle. However, working of bamboo and other items of minor forest produce will be allowed and regulated under separate working circle made for the purpose.

Section 7—Other Cultural Regulations.

112. *Improvement fellings.*—Removal of dead and decaying wood may be extracted after a proper inspection by the District Forest Officer or his Gazetted Assistant.

113. The following statement given the table for imspection and removal of dead wood from the suitable Reserved Forests :—

Name of Reserve Forest.	*Year.*
(1)	(2)
Siruvatkadu	1985
Kaduvamalai	1986
Kokkuparai	1987
Umaiyar & Kodavanar	1988
Shengalvarayar	1989
Pambar	1990
Kudiraiyar (half)	1991
Kudiraiyar (half)	1992
Koviladi & Pambukkalar	1993
P.V. Valley R.F.	1994
Oliyanuthu Odai	1995

114. *Artificial Regeneration.*—To improve the stock with valuable species, the various plantations of Bamboo, silk cotton and Tamarind will be raised under prescription of concerned working circle.

115. *Fire Protection.*—The whole area under working circle will be effectively fire protected by detecting and extinguishing the fire promptly. The plantations will be specially protected by fire tracing 4 metre wide lines around the plantations.

116. *Grazing.*—Controlled grazing will be allowed on passes. No grazing will be allowed from September to November months. This being the rainy season, rest will be given so that grasses may establish in the areas.

116. (*a*) The Control Book, Record of works, etc., are prescribed and appended to this plan in Appendix No. XXV.

CHAPTER VI.

The Bamboo Working Circle (Overlapping)

Section 1—General Constitution and Description.

117. This working circle comprises all the commercially exploitable natural bamboo bearing areas of the division existing plantations and proposed area for planting bamboos.

118. *General character of the vegitation.*—Generally Dendrocalamus strictus is found in drier localities while Bambusa arundinacea is found in moist localities along stream banks and depressions in very small proportion. Bamboo forests are .s. under great strain due to illicit cutting by local people, apart from over working by coupe contractor. In result, natural bamboo forests are becoming poorer and poorer in stocking as well as quality and at many places clumps have been died. Any further exploitation of bamboos will result in the complete extinction of the species unless given sufficient rest. With this object is view bamboo forests is this division will be given rest from exploitation will 1990–91.

Section 2—Special Objects of Management.

119. *The special objects of management are* :—

(i) To manage the natural bamboo forests and bamboo plantations scientifically with view to obtain progressively the optimum yield of bamboos.

(ii) To meet the legitimate demands of the local people for bamboo and also to meet the growing requirements of paper and pulp industry.

Section 3—Division of the Area.

120. The total area of the working circle is 16,895.53 hectares as detailed below :—

(*a*) Area of the natural bamboo forests ..	..	16,832.19 Hectare.
(*b*) Area of the existing plantations ..	..	6.00 Hectare.
(*c*) Area prescribed for raising bamboo plantations	57.54	hectare Inter plantin in old Teak plantations.
Total ..		16,895.73

Section 4—Felling Series.

121. Two felling series are constituted :—

(A) Natural Bamboo felling series—All natural bamboo forests

(B) Plantation Bamboo felling series—All Bamboo plantations.

122. Palani Bamboo series in Palani Range is being newly constituted during this plan period due to availability of commercial exploitable bamboo in valley portions.

123. Bamboo felling series, area, location and boundary description is furnished as follows:-

Serial number.	*Name of the Bamboo series.*	*Coupe number.*	*Area in Hectare.*	*Location and boundary description.*
(1)	(2)	(3)	(4)	(5)
1. *Kannivadi Range* :—				
	Virupakshi Bamboo series.	I	1,228.94	*Location* :—Part of Vennilai Reserved Forest and Palani hills Northern slope East Reserved Forest— *North* :—Starting from the peak 3375 in Vennilai block of Palani hills northern slopes east R.F. the boundry runs North East on ridges 2960, 3008, 3409 and 2665 then runs south east till it meets the boundary of Parappalar submergible area, thence along the dam lines and the ridges 2463, 2311 and 2007 till it meets the Thalayoothukadu enclosures line where a stream meets the enclosures line at 2361. *South* :—Thence runs towards north west along the stream to the peak point 3444 Koppukavadu and thence towards west at ridge point 2946 till it meets the Mattupattikadu enclosure and thence along the stream to a ridge 2455, 2670 and thence runs along the Eastern boundary of Vennilai R.F. till it meets the ridge point 2796. *West* :—Thence the boundary runs along the ridge 2925 to the starting point.
		II	972.28	*Location*—Part of Northern slope East R.F. of Palani hills. *North* :—Starting f om the ridge 2796 the boundary runs towards north-east along the eastern boundary of Vennilai block thence along the ridge 2455, 2946 to 3444, i.e. Koppukaradu thence along the stream till it meets the R.F. boundary at ridge 2361. *East* :—Thence the boundary runs along the the southern boundary of Thalayoothukadu enclosure till it meets western boundary of the siruvatkadu R.F. and thence runs southwards along the side R.F. boundary, till it meets the ridge point 3032. *South* :—Thence the boundary runs towards south west along the southern boundary of Northern slopes east R.F. boundary, thence runs along west wards vice ridges 3973, 4024, 4088, 4063 and 4567 i.e. western side of Buthamalai. *West* :—Thence the boundary runs towards north till it meets the western boundary of northern slopes East R.F. thence along the western boundary of northern slopes east R.F. till it meets the starting point.

Seriar numb.	*Name of the Bamboo series.*	*Coupe number.*	*Area. in Hectare.*	*Location and boundary description.*
(1)	(2)	(3)	(4)	(5)
		III	1,504.78	*Location*—The entire Siruvatkadu R.F.— *North*:—Starting in junction point of Palani hills Northern slopes East R.F. and Siruvatkadu R.F. the boundary runs towards Kottaiveli enclosure and thence runs along the Northern boundary of Siruvatkadu R.F. till it meets the north-east corner of the side R.F. at ridge 3487 (Palachikombu). *East* :—Thence along the Eastern boundary of Siruvatkadu R.F. (Via) ridges 3398, 3293, 2970, 3697 and 4184 till it meets to the point Marimalai peak at ridge 4596. *South* :—Thence the boundary runs along the Southern boundary of Siruvatkadu R.F. to the peak 3032. *West* :—Thence the boundary runs towards north along the western boundary of Siruvatkadu R.F. and till it meets the southern boundary of Thalayuthukadu enclosure and thence runs towards east along the side enclosures boundary till it meets the eastern boundary of the northern slopes East R.F. and to the starting point.
II. Palani Range—				
II	Palani Bamboo series.	I	4,199.49	*Location* :—The Kudiraiyar R.F. (Part) lies in Palani Range.
		II	1,761.25	*Location* :—The entire Oliyanuthu Odai R.F.
		III	7,165.45	*Location* :—The entire P.V. Valley R.F.

Section 5—Analysis of the Crop.

124. All the bamboo forests have been over worked and there is no mature bamboo of 8-10cm available. The crops is quite immature and tender with average 5-6 culms for clump.

125. Mainly bamboos are available in valley portions along the pernnial water streams and other sheltered places. Growth and stocking is not uniform but patchy.

Section 6—Method of Treatment.

126. The silvicultural system will be selective thinning of clumps by removing mature culms from the clump under a "culm selection system".

127. *Felling Cycle.* —The felling cycle of 3 years will be continued.

128. *Yield.* —Yield will be regulated by area.

129. *A. Natural Bamboo Felling Series* :—The areas under natu al bamloos will be closed for working during this plan period.

130. *B. Plantation Bamboo Felling Series.* —The plantations alloted to this series will be harvested on completion of 10 years from the year of formation. In other works, plantations will be harvested in its 11th year under 3 years cycle. The following table shows the sequence of cutting during this plan period:—

Name of the Range.	*Year and name of plantation.*	*Area in Hectare.*	*Year of Felling.*
(1)	(2)	(3)	(4)
Kannivadi Range	1964. Palani hills Northern slope East R.F.	4.00	1986, 1989, 1992, 1995
Palani Range	1963. Rettaiyam padi R.L.	2.00	1984, 1987, 1990, 1993, 1996.

Section 7—Method of Executing Fellings.

131. The felling will be carried out according to the Felling rules, subject to the provision that no clump containing 6 old culms of less shall be worked except for purpose of cleaning the clump.

132. *Felling Rules.* —(i) No cutting shall be permitted between 1st July to 15th October.

(ii) No immature culm shall be felled.

(iii) A minimum of as many old culms shall be retained as the number of immature culms (i.e. of last rains) in the clump subject to minimum retention of 6 old culms uniformly distributed over the clump.

(iv) The leading exterior culms in a clump shall not be cut in any circumstances as their retention is in interest of outward growth of clumps.

(v) Rhizomes shall not be dug.

(vi) Culms shall be cut at height of 15 to 30 cm from the ground and just above a node. Cut shall not be below the first internode.

(vii) The cut shall be made with sharp instrument so that the stump is not split.

(viii) Felling should be done as far as possible on inside of the clumps proceeding outwards

(ix) Fully or partially cut bamboos shall not be left unremoved in the clump.

(x) If due to natural reasons, no new culms are produced in the clump in a year, at least half the number of old culms in a clump should be reatained.

(xi) Culms or clumps in flower should be cut only after seeding has taken place.

(xii) Felling should be done in the presence of authorised agents or the Forester incharge with regard to departmental extraction.

133. *Determination of the age of the culms* :—The following characteristics of the culm should be useful in determining their ages.

(*i*) *New or one season old culm* :—Culms produces in the previous rains have fresh looking bracts or culm shelters still adhearing to the nodes. Abundent coating of white wax of bloom on the internode is seen. These are almost branchless.

(*ii*) *Two season old culm* :—These may still retain the bracts but in withered form a darkish in colour, many a times hanging on to the nodes. The internodes are greenish with their grayish white dry bloom coming out on rubbing. Side branches are present.

(*iii*) *Three season old culm* :—Generally, these have no culm sheaths but if any it is fully discoloured and weathered. Bloom no longer uniform but found in variegated manner which does not come off on rubbing.

(*iv*) *Mature culm* :—They show yellow patches on the green which is sure sign of maturity.

Section 8—Agency of Harvesting.

134. Natural bamboo forests will be harvested through contractors by offering coupes in upblic sale. Whereas plantations shall be worked departmentally.

135. *Lease Period* :—Lease period shall be for 9 months from 1st October to 30th June of succeeding year. The lease shall be offered in sale in the month of July and all formalities completed by end of September.

Section 9.—Artificial Regeneration.

136. To increase the area under bamboo, plantations will be raised under older Teak crops as Second crop since bamboo is shade bearing plant and do occur with teak in nature. Following table shows plantations to be raised every year.

Serial number.	*Name of the Range and locality.*	*Year of of Plantation.*	*Area in Heactrare.*	*Year proposed for Raising Bamboo.*
(1)	(2)	(3)	(4)	(5)
1	Periyakulam Range—Manjalar Block.	1937	0.80	
		1938	0.90	
		1939	1.04	1985—86
		1941	0.81	
		1942		
		1943	1.10	
		1944	0.90	1986—87
		1945	0.90	
			0.90	
		1946	0.81	
		1947	1.00	1987—88
		1948	0.80	
		1962	2.43	
2	Palani Range—Vilan-Combai Block.	1937	1.80	
		1937	1.60	1985—86
		1938	1.40	
		1939	1.52	
		1940	2.60	1986—87
		1941	1.70	
		1957	5.20	1987—88
3	Kannivadi Range—Kariveppilai Odai.	1960	10.21	1985—86
		1961	10.62	1986—87
		1962	8.50	1987—88

137. *Choice of species* :—Planting will be mainly confined to two species of bamboo, viz., Bambusa arundinacea and Dendracalamus strictus. Bambusa is preferred because of high yield and its thorny branches afford natural protection against grazing. However the choice depends on the local site factors, mainly.

138. *Preparation of site* :—The area shall be cleared of all weeds and climbers by month of March. Immediately after cleaning, the debris should be rolled out as fence.

139. *Espacement and Pitting* :—Alignment at an espacement of 5M x 5M for bamboos is prescribed and pitting work should be completed by April—May so that soil dugout is allowed to weather at least for 2 months. Pits of 45Cm2 shall be dug.

140. *Planting.*—Planting of one year old seedlings of Bamboo is prescribed. Planting should be completed by July—August taking advantage of the South-West monsoon. Planting work should be completed in shortest spell, accordingly, the labour should be organised to facilitate the planting work. Casualites will be replaced during the North-East monsoon in October—November or as and when noticed taking advantage of any rains if received earlier.

141. Bamboo seeds do not retain, viability on storage for more than a year. There are 75 to 100 seeds per gram with germination percent of 50 fresh seeds. Seeds start germination within a week to 10 days. Beds of 10m X 1m shall be formed after digging the soil to a depth of 30cms removing all stumps, roots and stones. The sides of beds should be supported by split bamboo. reinforced with pegs at suitable intervals. Farmyard mannure at one cartload per bed should be added and mixed well. The raked up soil is prayed with 5 per cent D.D.T. or 1 per cent gamaxene to ward off damage by ants and other insects. Seeds should be sown by broadcast and a light layer of ashe is spread over the beds. After about 1½ months, seedlings shall be pricked out in 13 X 25 cm. polythene bags of 200 gauge. These seedlings shall be maintained till planting out in field.

Section 10—Tending Operations.

142. Tending operations for bamboo plantations prescribed, are follows :—

(i) *In the year of Planting* :—One weeding and soil working is enough. If need be 2nd soil working may be given.

(ii) *In the 2nd year* :—Two soil working shall be given, during June/July and September/ October.

(iii) *In the 4th year* :—Cleaning of clumps should be done and if necessary congestion may also be released. The soil shall be piled on the edge of clump to facilitate growth of rhizome.

(iv) *In the 7th year* :—2nd cleaning and thinning shall be done in the 7th year. Hoeing around clump and heaping of earth around clump shall be done.

Section 11—Other Regulations.

143. *Grazing.*—All bamboo plantations shall be closed to grazing for period of 7 years in cluding the year of planting.

144. *Fencing.*—Bamboo is sensitive to grazing and browsing by cattle and wild animals. Hence brushwood fencing with height of 1 metre should be formed from the materials obtained from cleaning the regeneration area and also maintained till the area is open to grazing. Wherever possible stone wall fence should be constructed.

145. *Fire protection.*—Plantations should be properly protected from fire by forming external and internal fire lines.

146. *Control.*—The control forms shall be posted at the end of every year. Instances of flowering shall be recorded in the control journal. Record of works shall be in Form prescribed in Appendix No. XXV.

CHAPTER VII.

THE MINOR FOREST PRODUCE (OVERLAPPING) WORKING CIRCLE.

Section 1—General Constitution.

147. This working circle includes the entire forest area of 1,07,748.66 ha. covered by this plan (including tamarind plantations), under the control of forest department.

Section 2—Special objects of Management.

148. The special objects of management for this circle are :—

(*a*) to ensure scientific harvesting and wherever possible to improve production and obtain maximum yield of various minor forest produce (except bamboo and silk cotton capsules for which Separate working circle have been made) found in the Division.

(*b*) to maintain systematic statistics of outturn and centres of consumption.

Section 3—Distribution and availability.

149. In addition to bamboo and silk cotton capsules, followings are the principle minor forest produces of this division. These are distributed all over the Division.

Serial number and name of the produce.	*Particulars of part used.*	*Botanical name.*	*Use.*
(1)	(2)	(3)	(4)
1 Tamarind	Fruit ..	Tamarindus Indica ..	For enlinery purposes.
2 Myrabolam or Gallnut	Do. ..	Terminalia Chebula ..	Taning and for medical purposes.
3 Nellikai	Do. ..	Phyllanthus emblica or officinalis.	Medicine and pickles.
4 Wood apple	Do. ..	Feronia elephantum	Edible.
5 Veerai	Do. ..	Hemicyclia ..	Do.
6 Kalakkai	Do. ..	Carissa carandas ..	Do.
7 Elandai	Do. ..	Zizyphus jujuba ..	Do.
8 Naval	Do. ..	Syzygium Cuminii ..	Do.
9 Sundakai	Do. ..	Solanum Pubescens ..	Pickles and vegetables.
10 Custard apple	Do. ..	Anona Squamosa ..	Edible.
11 Mango	Do. ..	Mangifera indica ..	Edible and pickles.
12 Scapnut	Do. ..	Sapindus emarginatus.	Washing silk and linen and cleaning ornament.
13 Kodukkapuli	Do. ..	Inga dulce	Edible.
14 Pilakoy	Do. ..	Artocarpus integirifolia.	Do.
15 Avaram Bark	Bark ..	Cassia arriculata ..	Tanning.
16 Konnal Bark	Do. ..	Cassia fistula ..	Do.
17 Canes	Stem ..	Calamus species ..	Furniture and basket making.
18 Aloe fibre	Do. ..	Agave species ..	Fibre and rope.
19 Ethal	Reed ..	Ochlandra travancorica.	Furniture making.

(1)	(2)	(3)	(4)
20 Pungam seeds ..	Seeds	Pongamia pinnata ..	Medicinal oil and oil for dreesing leather.
21 Neem seeds	Do.	Azadirachta Indica ..	Medicinal purposes.
22 Ettikottai	Do. ..	Strychnos nuxvomica	Strychnine.
23 Thethamkottai ..	Do. ..	Strychnos potatorum	Medicinal.
24 Bothai grass	Leaves	....	Lemongrass oil.
25 Echan	Leaves and fruits	Phoenix Sylvestris ..	Fruits edible leaves for brooms and mat weaving.

III 150. A Complete list of Minor Forest produce stems including less important ones are given in Appendix No. XVI.

Section 4—Division of area and methods of collection.

151. *Minor forest produce leases.*—This working circle shall be divided into following Minor Forest Produce leases for their collection and harvest :—

(1) Tamarind
(2) Gallnuts
(3) Avaram and Konnai bark
(4) Bothai grass
(5) Other minor forest produces
(6) Honey, wax, stains, bones and horns.

152. These leases will be common for all the ranges except Gallnuts and Bothai grass in Ayyalur Range due to their non-availability in that range.

153. *Units of sale.*—The above mentioned leases have been further divided into smaller unit areas to obtain better yield, complete collection encourage small bidders to take part in auctions.

154. Accordingly, the unit of sale will be section of each range for all the leases except tamarind lease. The tamarind plantations will be included in the lease units and no separate lease for plantations alone be sold due to administrative reason. However, while arriving at fair price of the unit, fair price for such plantations will be considered separately and clubed with the general lease.

155. The following statement shows the complete list of range wise lease units, constituted under this working circle.—

Serial number and name of the lease unit. (1)	*Name and number of unit.* (2)	*Area and locality.* (3)
	I. Ayyalur Range.	
1 Tamarind	(i) Ayyalur	Area under the control of beat.
	(ii) Malaipatti	Do.
	(iii) R. Combai	Do.
	(iv) Pillaiyarnatham	Do.
	(v) Senthurai	Do.
	(vi) Puthur	Do.
	(vii) Pannamalai	Do.
	(viii) Devinaickanpatty ..	Do.
	(ix) Idayakottai	Do.
2 Avaram and Konnai ba-k	(i) Ayyalur	Area under the control of section.
	(ii) Vedachandur	Do.
	(iii) Senthurai	Do.
3 Other items of Minor Forest Produce and including gallnut and lemon grass.	(i) Ayyalur	Do.
	(ii) Vedachandur	Do.
	(iii) Senthurai	Do.

Serial number and name of the lease unit.	*Name and number of unit.*	*Area and locality.*
(1)	(2)	(3)
	II. Bodinaickanur Range.	
1 Tamarind	(i) Mundal	Area under the control of section.
	(ii) Theni	Do.
	(iii) Bodinaickanur	Do.
	(iv) Thevaram	Do.
2 Myrabolans	(i) Mundal	Area under the control of section.
	(ii) Theni	Do.
	(iii) Bodinaickanur	Do.
	(iv) Thevaram	Do.
3 Avaram and Konnai Bark.	(i) Mundal	Do.
	(ii) Theni	Do.
	(iii) Bodinaickanur	Do.
	(iv) Thevaram	Do.
4 Lemon grass	(i) Mundal	Do.
	(ii) Theni	Do.
	(iii) Bodinaickanur	Do.
	(iv) Thevaram	Do.
5 Other Minor Forest Produce described.	(i) Mundal	Do.
	(ii) Theni	Do.
	(iii) Bodinaickanur	Do.
	(iv) Thevaram	Do.
	III. Kannivadi Range.	
1 Tamarind	(i) Virupakshi	Area under the control of section.
	(ii) Kannivadi	Do.
	(iii) Oddanchatram	Do.
2 Gallnut	(i) Virupakshi	Do.
	(ii) Kannivadi	Do.
	(iii) Oddanchatram	Do.
3 Avaram and Konnai Bark.	(i) Virupakshi	Do.
	(ii) Kannivadi	Do.
	(iii) Oddanchatram	Do.
4 Lemon grass	(i) Virupakshi	Do.
	(ii) Kannivadi	Do.
	(iii) Oddanchatram	Do.
5 Other items of Minor Forest Produce described.	(i) Virupakshi	Do.
	(ii) Kannivadi	Do.
	(iii) Oddanchatram	Do.

Serial number and name of the lease unit.	*Name and number of unit.*	*Area and locality.*
(1)	(2)	(3)
	IV. *Palani Range.*	
1 Tamarind	(i) Palani	Area under the control of section.
	(ii) Pappampatty	Do.
2 Gallnut	(i) Palani	Do.
	(ii) Pappampatty	Do.
3 Avaram and Konnai Bark	(i) Palani	Do.
	(ii) Pappampatty	Do.
4 Bothai grass	(i) Palani	Do.
	(ii) Pappampatty	Do.
5 Other Minor Forest Produce items described.	(i) Palani	Do.
	(ii) Pappampatty	Do.
	V. *Thandigudi Range.*	
1 Tamarind	Thandikudi	All the R.F.'s in control of Forest Department in this Range.
2 Myrabolan	Thandikudi	Do.
3 Avaram and Konnai Bark	Thandikudi	Do.
4 Lemon grass	Thandikudi	Do.
5 Other Minor Forest produce described.	Thandikudi	Do.
	VI. *Periyakulam Range.*	
1 Tamarind	(i) Devadanappatti	Area under the control of section.
	(ii) Pambar	Do.
	(iii) Periyakulam	Do.
2 Myrabolam	(i) Devadanappatti	Do.
	(ii) Pambar	Do.
	(iii) Periyakulam	Do.
3 Avaram and Konnai Bark	(i) Devadanappatti ..	Do.
	(ii) Pambar	Do.
	(iii) Periyakulam	Do.
4 Bothai grass	(i) Devadanapatti	Do.
	(ii) Pambar	Do.
	(iii) Periyakulam	Do.
5 Other Minor Forest produce items described.	(i) Devadanappatti	Do.
	(ii) Pambar	Do.
	(iii) Periyakulam	Do.

ABSTRACT.

Serial number and name of the range.	*Name and Number of lease unit.*					
	Tamarind.	*Gallnut or Myrabolam.*	*Avaram and Konnai Bark.*	*Lemon grass.*	*Other items of Minor Forest Produce described.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	UNITS	UNITS.	UNITS.	UNITS.	UNITS.	UNITS.
1 Ayyalur	9	—	3	..	3	15
2 Bodinaickanur	4	4	4	4	4	20
3 Kannivadi	3	3	3	3	3	15
4 Palani	2	2	2	2	2	10
5 Thandikudi	1	1	1	1	1	65
6 Periyakulam..	3	3	3	3	3	15
Total ..	22	13	16	13	16	80

156. *Period of lease* —The lease shall be sold out for collection of Minor Forest Produce as provided below :—

Tamarind leases :—Six months (from 1st November to 30th April).

Gallnut leases :—Two years (from 1st July to 30th June of second year.).

Other leases :—One year (from 1st July to 30th June).

157. *Agency of collections* —(*a*) The collection of honey, wax, stains, hones, horns and tusks will be done departmentally and will be disposed in accordance with the order in force from time to time.

(*b*) The collection of other items will be through contractors, However the tribal Co-operatives will be encouraged to take up the minor forest produce lease whenever possible.

(*c*) Departmental collection of Tamarind and Myrabolams will be encouraged in phased manner, whenever these lease do not fetch the required price in open auctions.

(*d*) Departmental collection shall be resorted to, if a particular lease is not getting favourable response in open auction.

158. *Alteration.*—It will be open for District forest officer in Consultation with circle Conservator to spilt up or club any of the above lease units on sound managerial and administrative grounds.

Section 5. Measures of Improvement.

159. Concerted efforts will be done to improve and increase the annual yield of moinor forest produce of the division in Bamboo, Silk cotton capsules and Tamarind through tending the existing plantations and planting further areas. Prescriptions for tamarind are given here since bamboo and silk cotton are dealt with in separate working circle.

160. *Tamarind.*—The tamarind has been planted in the Division since 1959-60. There has been partial success with modernate results with few failures here and there. To improve the yield, the existing tamarind plantations will be tended by carrying out cleaning and thinning wherever necessary and protecting from fire.

161. The list of Tamarind plantations raised during past is appended in appendix No. XVII.

162. The existing area under tamarind plantations and proposed area for planting during the plan period is given as follows :—

Serial number and name of the Range.	*Existing area under Tamarind plantations.*	*Area proposed for raising plantations.*	*Total Area.*
	HECTARE.	HECTARE.	HECTARE.
(1)	(2)	(3)	(4)
1 Kannivadi	22.31	150.00	172.31
2 Ayyalur	92.24	80.00	172.24
3 Palani	15.25	..	15.25
4 Periyakulam	143.94	42.00	185.94
Total ..	273.74	272.00	545.74

163. *Thinning.*—The tamarind plantations which show more than 70 per cent stocking have been indentified and will be thinned during the plan period.

164. The thinnings will be carried without creating any gaps so that final espacement should come to 12m × 12m (approximate) the programme of cleaning and thinning of the plantations is given below :—

Serial number and Year of plantations.		*Name of the plantation.*	*Area.*	*Proposed year for thinning.*
(1)		(2)	(3)	(4)
I. *Ayyalur Range* :			HECTARE.	
1	1975	Panjanthangi	4.40	1985–86
2	1976	Pannamalai	4.80	1986–87
3	1976	R. Kombai	5.00	1986–87
4	1977	Thoppaswamymalai	5.00	1987–88
5	1978	R. Kombai	5.00	1988–89
6	1979	Moonkil Karadu	5.10	1989–90
II. *Kannivadi Range* :				
1	1976	Komalipatti	10.00	1986-87
2	1978	Karuveppilai Odai	1.00	1988-89
III. *Palani Range.*				
	Nil.			
IV. *Periyakulam Range* :				
1	1960	Pambar	5.26	1985-86
2	1960	Pambar	4.04	1985-86
3	1961	Kumbakkarai	4.04	1985-86
4	1962	Pambar	4.04	1985-86
5	1962	Kumbakkarai	5.26	1985-86
6	1963	Kumbakkarai	4.04	1985-86
7	1964	Pambar	4.04	1985-86
8	1966	Karungal Thonimedu ..	8.48	1985-86
9	1974	Amburuvi	5.46	1985-86
10	1978	Sothuparai Saragam ..	11.45	1988-89
11	1980	Varattar	21.45	1990-91

165. The other Tamarind plantations as and when are found congested may be thinned. The District Forest Officer or his Gazetted Assistant will inspect the plantations coming for thinning do the marking.

166. *Future Planting.*—The distribution of area marked for planting with tamarind is given below :—

Range.	*Location.*	*Total area.*	*Annual area.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)
Ayyalur	Thoppasamimalai R.F.	80	8	..
Periyakulam	(i) Palani hills Southern slopes Western R. F. Block IV Pambar	12	6	Two years only.
	(ii) Agamalai R.F.	30	10	Three years only.
Kannivadi	(i) Palani hills Northern slopes East R.F.	50	5	..
	(ii) Chatrapatti R.F.	100	10	..
		272 Hec.		

167. The annual planting area has been demarcated on 4″— 1 mile S. I. sheets accompanying this plan.

Section 6—Method of Forming Plantations.

168. The area comming for planting will be surveyed and clear felled of all jungle growth by end of month of April. The debris will be burnt in the field.

169. *Aligning and stacking*—Aligning and stacking will be done at an espacement of 12m × 12m (C.C. F's Ref. No. K.Dis. 1/102954/83, dated 4th October 1983).

170. *Pitting.*—Pits of 45 cm will be dug and completed by end of June.

171. *Planting.*—Two years old healthy and about 6 feet tall pot seedlings of Tamarind raised in nursery will be planted in the month of July/August after first monsoon showers.

172. *Weeding.*—Two weedings and soil workings will be done in first and 2nd year.

173. *Fencing.*—All plantation will be fenced with three strand barbed wire or stone wall fence for minimum of five years for protection from grazing.

Section 7—Stone Quarry.

174. There is a good potential stone quarry in Palani Range in Karadikuttu R. F. yielding high quality metal.

175. To meet the local demands, this quarry may be worked after getting approval of Central Government since stone quarrying is prohibited under Forest Conservation Act of 1980.

Section 8—Control.

176. *Accounts*—The contractors will furnish to the concerned Range Officer, quantity of minor forest produce collected by them every month.

177. The control forms prescribed shall be maintained by Divisional Forest Officer.

178. The plantation journals shall be maintained for every plantation.

CHAPTER VIII.

THE SILK COTTON PLANTATION WORKING CIRCLE.

Section 1—General Constitution.

179. This working circle comprises of all silk cotton plantations (except those which have been converted into teak) raised during past and area now proposed for planting.

Section 2—General Character of the Vegitation.

180. Silk cotton (Ceiba pentandra) is an introduced exotic tree in form of compact plantations. It is thriving well in moist deciduous mixed forests wherever alluvial soil is available. On drier aspect the growth of silk cotton plantations is rather poor.

181. During past, Indian variety and Singapore variety of silk cotton have been raised. Between the two, Singapore variety gives better yield of capsules in numbers and size. Whereas Indian variety grows taller and strudy making difficult the harvest of capsules.

182. The soft wood (Ailanthus excelsa) plantations raised during past in Pudukulam area of Bodi Range are poor and stuned in growth. Many of the trees are showing top dying. Therefore, these plantations are proposed to be converted into silk cotton.

Section 3—Special objects of Management.

183. The special objects of management are :—

(i) To convert suitable areas into silk cotton plantations, commercially more valuable crop.

(ii) To nurse the existing silk cotton plantations to improve the production of pods.

(iii) To maintain systematically the statistics of outturn from each plantation.

Section 4—Distribution of area.

184. Total area of Silk Cotton Plantation will be 740.23 hectares, including 490.23 hec. under older plantations and 250 ha. proposed for planting during the plan, by replacing soft-wood plantations.

185. The Silk Cotton Plantation has been divided into Four planting series. The distribution of area is given below :—

Name of the range.	*Planting series.*	*Area already planted up.*	*Area proposed.*	*Total.*
(1)	(2)	(3)	(4)	(5)
I. Bodinaickanur ..	(i) Bodi planting series ..	39.16	150.00	189.16
II. Periyakulam ..	(i) Periyakulam planting series.	211.42	..	211.42
III. Kannivadi ..	Kannivadi planting series	235.61	100.00	335.61
IV. Palani	Palani planting series ..	4.04	..	4.04
	Total ...	490.23	250.00	740.23

Section 5—Method of Treatment.

186. *Silvicultural system.*—Area coming up for annual planting shall be clearfelled of existing (Ailanthus excelsa) crop and followed up by artificial planting with silk cotton. The older plantations will be suitably tended by carrying out cleaning and thinning operations in a phased programme. The list of silk cotton plantations raised in the past is appended in appendix No. XV.

187. *Disposal of cut materials* :—In case of softwood area coming up for planting, the whole crop will be harvested departmentally and cut material converted into 1 metre billets and stacked under shade. This will be sold in public auction after giving wide publicity. This soft wood has high demand in match industry. The auction should be so fixed that cut material should not lie in field for more than 7 days because due to drying it will loose its market utility and value too. This operation shall be completed by the end of May.

188. Eucalyptus hybrid coupe shall be handed over to the paper industry. One year in advance, so that area is available for next operation during month of April of year of planting.

189. *Yield.*—It will be regulated by area only.

189-A. A. *Choice of species.*—Silk cotton (Singapur variety) shall be the main species to be planted since its yield of pods is better.

190. *Rotation.*—Rotation is of the critical value and irrelavent since silk cotton is being raised for its pods mainly and not for timber, etc. There is no data to show at what age the tree of silk cotton dies or stops production of pods, Hence no rotation is fixed at this stage.

Section 6—Method of Collection of pods.

191. *Agency of Harvesting.*—To pods from all the plantations shall be collected departmentally every year. If there is demand few plantations may be alloted to the labour co-operaive societies.

192. *Period of collection/lease.*—Silk cotton starts flowering during month of December—January. The peds ripen during month of March—May. Hence period of lease shall be 1st April to 30th June.

193. *Unit of lease Collection.*—Normally each plantation shall be treated as separate unit of lease. However it is left open to the District Forest Officer to club few plantations together depending upon the circumstances and easy of management.

194. *Assesment of Yield and Sale of lease.*—Assesment of yield of peds shall be done by District Forest Officer after personal inspection during month of February;March and lease be allotted to society or departmental collection should start during month of April;May.

195. These departmentally collected pod shall be sold in public auction in suitable lots of 10,000 pods each.

Section 7.—Regulation of Regeneration Operation.

196. *Nursery.*—Standard nursery beds of 10m x 1m x 30 cm. will be formed in November. After sowing of ½kg. seeds per bed a thin layer of earth and sand is spread on the seeds. Germination will take place within 15 to 20 days. When the seedlings are attaining to height of 10 to 15 cm these may be pricked out in Polythene containers. Watering regime is prescribed container seedings as follows :—

(i) Watering twice daily for 45 days.

(ii) Watering once daily for 60 days.

(iii) Watering once in alternative days for 120 days or till planting.

The container seedling should be shifted at least once in a fortnight in order to prevent the tap root striking the ground.

197. *Aligning, staking and Planting.*—The planting site will be aligned at an espacement of 4m x 4m and pits of size 30 cm cube will be dug. 6 to 8 months old good sized container plants should be used for planting. Though the local practice is adopted in planting up of 1 or 2 year old stumps in Crow-bar holes during the rainy season but the experience indicates that the container plants will always give the better results, particularly in the drier tract. Hence the planting of the container plants is prescribed.

198. *Weeding and soil working.*—Two weeding and soil working is prescribed for the first and second year.

199. *Sequence of planting.*—Tabular statement showing area to be planted in each planting series is given below :—

Serial number and name of the plantation block.	*Year of raising.*	*Coupe number.*	*Area in hectare.*	*Location and Remarks.*
(1)	(2)	(3)	(4)	(5)
1 *I. Kannivadi Range—*				
Kannivadi silk cotton planting series.	1984-85	I	10.00	1964 E.H. and miscellaneous plantation is converted into silk cotton.
	1985-86	II	10.00	
	1986-87	III	10.00	
	1987-88	IV	10.00	
	1988-89	V	10.00	
	1989-90	VI	10.00	
	1990-91	VII	10.00	
	1991-92	VIII	10.00	
	1992-93	IX	10.00	
	1993-94	X	10.00	
		Total ..	100.00	
II. Bodi Range—				
Bodi silk cotton planting series.	1984-85	I	15.00	1956 to 1958 and 1960, Pudukulam softwood plantations are converted in into silk cotton plantation.
	1985-86	II	15.00	
	1986-87	III	15.00	
	1987-88	IV	15.00	
	1988-89	V	15.00	
	1989-90	VI	15.00	
	1990-91	VII	15.00	
	1991-92	VIII	15.00	
	1992-93	IX	15.00	
	1993-94	X	15.00	
		Total ..	150.00	

Section 8—Other Regulations.

200. *Grazing.*—The plantations shall be rigidly closed to grazing for a period of 5 years including the year of planting.

201. *Fire protection.*—Plantation should be properly protected from fire by forming external and internal fire lines.

202. *Control.*—The control forms and Record of works relating to this plantation shall be posted at the end of every year.

CHAPTER IX.

MISCELLANEOUS PRESCRIPTION.

Section I—Pinus Patula.

203. *Object of management.*—The objects of management are :—

(i) to convert suitable areas into economically valuable species of pinus patula in order to increase the value of the forests.

(ii) to supply raw materials of the pulpwood industries.

(iii) to supply of timber for the manufacture of packing cases.

(iv) to increase be aesthatic value of plateau.

204. A limited and suitable area is selected for afforestation with pinus patula during the plan period.

205. *Preparation of Nursery.*—Standard nursery bed should be formed along the contours after properly terracing the site. The soil in the beds will be dug up to a depth of 30 cm. ½ cart-load of pine soil should be taken from underneath old pine plantations and spread over mother bed in 2 to 3 cms. thickness layer. It is preperable that the soil in the bed should be of light texture. Preparation mother beds should be completed at the latest by the end of April preceeding the year of planting. Seeds should be pretreated by soaking for 24 hours in water before sowing at the rate of 200 grams per bed. Seeds are sown in lines and lightly covered with pure soil and sand.

206. Germination will take place from 15 days to 45 days. When the seedling are 1 to 2 months old with a height of 5 to 6 cm. these should be pricked-out in the poly pots. The poly pots are filled up with fertile loamy soil after adding sufficient quantity of cowding manure. Shade should be provided for 20 to 30 days and then kept out in the sun.

Watering the containers is prescribed as follows :—

(i) Watering twice daily for 45 days.

(ii) Watering once daily for 60 days.

(iii) Watering once in alternate days for 120 days or till planting.

207. *Preparation of site.*—All the preliminary works like survey, clearfelling, uprootal of stumps should be completed before the month of February. Aligning and marking will be done with an espacement of 3m x 3m and 30 cm ³. pits should be dug up before end of April. Planting should be completed by the end of June.

208. *Silvicultural system.*—

The silvicultural system will be the clear felling of miscellaneous growth followed artificial regeneration.

TABULER STATEMENT FOR RAISING PINUS PATULA PLANTATIONS.

Serial number.	*Name of the range.*	*Year of raising.*	*Coupe number.*	*Area in hectare.*	*Location.*
(1)	(2)	(3)	(4)	(5)	(6)
1	Periyakulam Range	1984-85	I	20.00	Bodi North R.L.
		1985-86	II	20.00	
		1986-87	III	20.00	
		1987-88	IV	20.00	
		1988-89	V	20.00	
		1989-90	VI	20.00	
		1990-91	VII	20.00	
		1991-92	VIII	20.00	
		1992-93	IX	20.00	
		1993-94	X	20.00	
			Total ..	200.00	

209. *Rotation.*—The question of rotation is irrelevent since it is the beginning. However tentatively a rotation of 25 years is fixed which is being followed else where in the state.

210. *Regulations of Yield.*—Yield will be regulated on area basis. However no plantation will be come for felling during the plan period. Hence sequence of felling is not prescribed.

211. *Other Regulations.*—Generally two weeding and soil working will be carried out in the initial 2 years. In view of the fire hazard in the pine plantations, strip weeding and soil working or skinning by complete scraping of all weeds is prescribed.

212. All pine plantations will be closed to grazing for a period of 5 years including the year of formation.

213. All pinus plantations shall be fire traced, all around during month of January. The fire tracing will be to width of 3 metres.

Sections 2.—Eucalyptus Plantations.

214. *General Constitution.*—Plantations of pure Eucalyptus hybrid have been raised from 1963 onwards with main object of supplying fuel to the public and pulpwood to the industries. Other species like Eucalyptus citriodora have also been raised in some places in Bodi, Kannivadi and Palani Ranges.

215. A list of plantations of Eucalyptus hybrid and other Eucalyptus species raised pure or in mixture with other species is furnished in appendix No. XVIII. Since the growth of Eucalyptus hybrid is not encouraging in this division, no new plantations is prescribed. Only Eucalyptus grandis is prescribed for planting in Agamalai Block adjoining, Bodi North R.L. of Periyakulam Range and Kudiraiyar R.F. of Palani Range due to suitability of site.

216. *Division of Area.*—Total area under these prescription will be 636.57 ha. as detailed below:—

	E. H. Plantations.			*E. Grandis.*			
Serial number and Name of the range.	*Existing area in hectare.*	*Proposed area in hectare.*	*Total.*	*Existing area in hectare.*	*Proposed area in hectare.*	*Total.*	*Grand Total in hectare.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 Ayyalur ..	111.75	..	111.75	46.54	..	46.54	158.29
2 Palani ..	29.87	..	29.87	..	145.00	145.00	174.87
3 Kannivadi ..	60.00	..	60.00	1.01	..	1.01	61.01
4 Periyakulam ..	34.33	..	34.33	..	200.00	200.00	234.33
5 Bodi ..	..	..	..	8.07	..	8.07	8.07
Total ..	235,95	..	235.95	55.62	345.00	400.62	636.57

217. *Method of Treatment.*—The areas already under Eucalyptus hybrid plantations, showing frequent failure patches above 0.25 ha. in area shall be gap planted following the year of felling.

218. The areas now proposed shall be planted with Eucalyptus grandis following technique prescribed below.

219. *Silvicultural system.*—The silvicultural system will be—

(i) Clear felling followed by natural regeneration from coppice, supplemented by artificial regeneration wherever necessary in the case of existing plantations.

(ii) Clear felling of miscellaneous growth by artificial regeneration in a limited and suitable area as prescribed for planting with Eucalyptus grandis during the plan period.

220. *Rotation.*—All plantations of Eucalyptus grandis will be coppiced at the rotation age of 10 years where as Eucalyptus hybrid will be coppiced at the rotation age of 8 years.

221. *Choice of Species.*—The species prescribed for fresh planting will be Eucalyptus grandis.

222. *Planting Techinique.—Nursery.*—The Eucalyptus seeds may be obtained from the genetic division, Coimbatore. Raised standard Mother Bed should be formed and about 100 grams of seeds to be sown per Bed after mixing with fine seived sand. A thin layer of straw over Bamboo splits should be spread over the sown seeds. Germination commences in about a week time and it will be completed within 3 weeks. The cover is removed and high shade is provided. When the seedlings are 4 cm to 6 cm pricking out into poly pots will be done and the containers are provided with diffused high shade and watered as per watering schedule.

223. Frequent grading of container seedlings should be one to avoid root stricking into ground and to get sturdy seedlings. While doing so the tallest seedlings shall be planted out first followed by smaller ones.

224. *Site Preparation.*—This involves, clearfelling the natural growth wherever necessary, uprootal of stumps and roots, burning of all slush. This should be over by month of April.

225. *Pits.*—30 cm³ pits shall be dug out during the months of April and May.

226. *Planting.*—Planting should be completed during the months of June and July at an espacement of 2m x 2m.

227. *Weeding and Soil Working.*—Two weeding and soil workings should be done in the year of formation. During second year atleast one weeding and soil working should be carried out.

228. *Gap Planting.*—The failure patches, in older plantations which are more than 0.25 ha. in area shall be regenerated artificially subsequent to the main felling of crop. The unwanted weeds and bushes interfearing coppice growth should be cleared and felled patches surveyed. Planting technique already discribed be followed.

229. *Sequence of Planting.*—The proposed area for raising Eucalyptus grandis is given below and marked into annual coupes.

Serial number.	*Name of the Range.*	*Year of Planting.*	*Coupe number.*	*Area in hectare.*	*Location.*
(1)	(2)	(3)	(4)	(5)	(6)
1	Periyakulam Range	1984—85	I	20.00	Agamalai R.F. and Bodi North R.L.
		1985—86	II	20.00	
		1986—87	III	20.00	
		1987—88	IV	20·00	
1	Periyakulam Range	1988—89	V	20.00	
		1989—90	VI	20.00	
		1990—91	VII	20.00	
		1991—92	VIII	20.00	
		1992—93	IX	20.00	
		1993—94	X	20.00	
	Total ..			200.00	
2	Palani Range	1984—85	I	16.00	Kudiraiyar R.F.
		1985—86	II	16.00	
		1986—87	III	16.00	
		1987—88	IV	16.00	
		1988—89	V	16.00	
		1989—90	VI	16.00	
		1990—91	VII	16.00	
		1991—92	VIII	16.00	
		1992—93	IX	17.00	
	Total ..			145.00	

230. *Regulation of Yield.*—Yield will be regulated by area.

231. *Tablur Statement of Fellings.*—The following statement shows the list of Eucalyptus plantations for felling in each year ofthe period of the plan with the adoption, of a 8 year rotation for Eucalyptus hybrid and 10 years for Eucalyptus grandis.

Serial number.	*Year of plantation.*	*Locality*	*Area in hectare.*	*Proposed year for felling.*
(1)	(2)	(3)	(4)	(5)
Eucalyptus Hybrid :				
1. *Ayyalur Range.—*				
1	1963	Pilaiyarnatham	8.00	1987—88 1995—96
2	1964	Do.	20.00	1987—88 1995—96
3	1966	Moongil Karadu	4.00	1987—88 1995—96
II. Palani Range.—				
1	1959	Rettaiyambadi	4.00	1987—88 1995—96
2	1960	Do.	4.00	1987—88 1995—96
3	1961	Do.	4.00	1987—88 1995—96
4	1962	Do.	4.00	1987—88 1995—96
5	1963	Do.	5.87	1987—88 1995—96
III. Kannivadi Range :—				
1	1964	Karuveppilai Odai	18.00	1987—88 1995—96
2	1963	Virupakshi South F.C. XIV	8.00	1987—88 1995—96
3	1964	Do. F.C. XV	18.00	1987—88 1995—96
4	1965	Do. F.C. XVI	8.00	1987—88 1995—96
IV Periyakulam Range.—				
1	1964	Pamber pit I	20.23	1987—88 1995—96
2	1964	Do. II.	3.23	1987—88 1995—96
3	1964	Do.	6.07	1987—88 1995—96
4	1967	Pambar	4.80	1987—88 1995—96
Eucalptus Grandis :				
I. Kannivadi Range :				
1	1969	F.B. 30/22 in Pachalur	1.01	1985—86
II. Palani Range.—				
1	1977	Melupallam	30.35	1987—88
2	1977	Do.	16.19	1987—88
III. Bodi Range.				
1	1968	Ammankoil Saragam	6.07	1985—86
2	1973	Central station	2.00	1985—86

NOTE :—The failed and very poor stocked plantations are not included for fellings.

Section 3—Sandal.

232. There is no natural sandal occuring in this division. However few plantations of sandal have been raised during past with poor results. These plantations have not failed well. hence no new plantation of sandal is prescribed during this plan.

233. *Agency of Exploitation.*—All operation connected with the sandal will be carried out departmentally.

234. *Method of Exploitation.*—Exploitation will be confined to dead trees both standing and fallen, stumps, roots, fallen or broken dead branches of green trees. No, living trees whether mutilated or spiked will be extracted. "Sandal wood felling rules" will be base for the procedure to be followed for marking and the extraction of the sandal trees.

235. *Artificial Regeneration.*—Artificial regeneration has been under taken in the past, from 1963 to 1965 with very poor success in Mudimalai series of Ayyalur Range and Northern slope Reserved forests in Virupakshi in Kannivadi Range. The afforestation work in sandal started during 1965–1966 in Pambar Reserved forests of Periyakulam Range completely failure. Lack of good planting stock, want of protection f om grazing animals and poor after-care main anance are the main causes for failure. The details of sandal plantations raised in the past is given in appendix No. XIX.

236. *Maintance of Older Plantations.*—All unwanted growth should be clearfelled to the entire plots. The failure patches in order plantations shall be regenerated artificially. Two weeding and soil working may be p ovided for backward plants only.

237. *Fencing.*—The cut materials may be used for fence. Unless effective protection from grazing animals is provided to the plantations, the regeneration of sandal is bound to fail. Therefore either barbed wire Fencing or chain link fencing fixed to stone or concrete pillar is absolutely necessary. The high cost of expendirure under this item of work is realy justifiable considering the high return, the plantations are going to yield after the rotation age.

Section. 4.—Avenue Plantation.—

238. Avenue planting over 74 km. has been carried out in the past. The list of these plantations is given below:—

Serial number.	*Year of Plantation.*	*Location or Name of the plantation.*	*Area in k.m.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)
I. Kannivadi Range :				
1	1980	Sempathy—Batlagundu Road	14. K.M.	Mise.
2	1981	Oddanchatram-Chatrapatty Road	5.K.M.	Tamarind.
II. Palani Range :				
1	1978	Palani Road	10.K.M.	
2	1979	Palani Road	10.K.M.	
3	1979	Palar Porandalar Canel	20.K.M.	
4	1980	Palani to Kodaikanal	10.K.M.	
5	1981	Naikarappally Road	5.K.M.	
		Total	74.K.M.	

239. Avenue plantations will be raised along forest roads during period of the plan depending on the availability of funds and targets fixed annually. Accordingly, the following Three Forest Roads are prescribed for avenue planting during the plan period :—

Serial number.	*Name of the Road.*	*Distance in K.M.*	*Year of planting Avenue.*	
(1)	(2)	(3)	(4)	
I. Ayyalur Range :				
1	A. Kombai to Pillaiyarnatham Road	11.1	1985—86	1986—87
2	Ayyalur to Thoppasamiimalai Road	13.7	1987—88	1988—89
3	Ayyalur to Senkurichi Road	14.5	1985—86	1986—87

240. *Choice of Species.*—Species selected for avenue plantations should be a mixture of economically useful, once like Tamarinu Eucalyptus and flowering plants like Gold-Mohar Cassia Marginata, Peltophorum, Ficus religiosa, Bassia latifolia, Pungam, Naval etc.

241. *Espacement.*—The spacing of 10m between plants on either side of the roads is good enough.,

242. *Planting Technique.*—Planting of 1½ to 2 year old container seedlings of 5' to 6' tall in 60 cm Cube pits and providing tree guards. The various types of tree guards like simple mud, wall fence, Random rubble mudwall fence, Honey combed brick wall fence may be adopted.

243. *Manuring.*—2 K.G. of well decomposed Farm yard manure shall be applied to pit before planting. During 2nd year 50 cm of N.P.K. mixture to applied.

244. *Watering.*—Watering has to be done in either by pouring directly into planted spot or through installing mud pots partly under ground with a hole in the bottom side towards the side of the planted seedlings. The hole in the pot is inserted with either twisted polythene sheet or piece of cloth.

245. One Mazdoor will be in charge of 2.5. K.M. of avenue planting for purpose of watering, protection and maintenance of fence. During rainy season he will attend to work like, weeding and soil working and application of manure as well. During 2nd year onwards one mazdoor shall be engaged for strech of 5 K.M.

Section 5—Special Division.

246. *Vaigai Soil Conservation Division.*—The vaigai soil conservation Division with head quarters at Periyakulam was formed as per G.O. Ms. No. 1448 forests and Agriculture Department, dated 30th April 1964 with main object of undertaking soil conservation measures in the Catchment of the Vaigai Dam Reservoir. This division has under taken planting work in the catchment areas in Madurai District. The following is the staff sanctioned for the division and accorded the permanent retention in G.O. Ms. No. 1061, dated 26th September 1979:—

1.	Deputy Conservator of Forests	1
2.	Rangers	6
3.	Foresters	10
4.	Junior Assistants	2
5.	Draughtsman Grade III	1
6.	Typist	1
7.	Basic servant	7
8.	Jeep Driver	1
9.	Superintendent	1

247. From the year 1966 onwards, this division has undertaken soil conservation measures by raising plantations in the Reserved Forests and Reserved lands. This division has planted a total area of 1814.08 ha. from inception to 1980 in this division. The list of plantations raised so far has been appended in Appendix No. XIVA.

248. Some of the Rehabilitation planting Blocks falling under the catchment areas may be takled by the Vaigai Soil Conservation Division as in the past with the concurence of the Conservator of Forests, Madurai circle.

249. *Method of Regeneration.*—It is very essential that all the preliminary regeneration operations are to be completed according to the time schedule and Nursery, planting technique, etc., are to be followed as prescribed in chapter under Rehabilitation working cicle in order to take maximum advantages of the short monsoon period. They should also adopt engineering means like check daming, Gully plugging, cho-training (Nalla-Training) and Contour trenching, etc., basides planting technique to obtain better results.

Section 6—Grazing.

250. Grazing will be permitted in all the Reserve forests, Ex-zamin and Ex-Panchayat forests under the control of the forests Department with exception of certain specified areas which will be closed to grazing mainly for silvicultural reasons from time to time.

251. The areas to be closed to grazing are as follows:—

(i) Areas which may be closed to grazing as a punitive measure or for any other reasons under the powers vested with the District Forest Officer as per G.O. Ms. No. 51, Development dated 4th January 1940 as per Forest Manual.

(ii) All Regeneration areas Raised under different working circle and other regeneration areas will be closed to grazing for a period of five years including the year of planting.

(iii) Worked fuel coupes will be closed to grazing for a period of five years including the year of felling.

252. *Areas permanently closed to Grazing.*—Under the category the areas which are permanently closed to grazing are furnished below:—

Name of the Range.	*Name of the locality.*	*Extent hecters.*	*Remarks.*
(1)	(2)	(3)	(4)
Palani Range	1. Velan combai and plantations.	67.54	Permanently closed for silvicultural grounds.
.. ..	2. Siruvatkadu R.F.	1,242.42	Permanently closed under Board proceedings.
Kannivadi Range	Kaniyankadu R.F.	1,009.72	Permanently closed under Board proceedings.

253. *Grazing notification.*—A notification regarding, grazing will be published every year in the District Gazette in the Month of May specifying the areas close to grazing.

254. *The object of management.*—The objects of management under this section are:—

(i) to provide adequate pasture for the cattle of the villages in the neighbour hood of the reserve in consistant with conservation of forests and the objects of management of the various working circles.

(ii) to limit the incidence of grazing to what the forests can reasonably sustain and to drive a legitimate amount of revenue by levy of licence fee for the cattle grazing in the forests.

(iii) to improve grazing facilities through controlled grazing.

255. Grazing will be regulated by issue of permits subject to usual conditions. All animals, except goats will be permitted to graze in the forests.

256. *Grazing year.*—A grazing permit will be valid for the duration of the grazing year which commence from 1st July and ends on 30th June of the succeeding calender year.

257. *Grazing rates.*—As per G.O. Ms. No. 228 Forests and Fisheries Department dated, 20th March 1978 and communicated in Chief Conservator of Forests Endt. No. 2663/78 dated, 6th April 1978 with effect from 1st July 1978, the grazing shall be:—

Sheep	Re. 1.00 per head.
Cow	Rs. 2.00 per head.
Baffaloes	Rs. 4.00 per head.
Ass or Horse	Rs. 4.00 per head.
Elephant	Rs. 30.00 per head.

258. The entire divisions will from grazing unit for which one permit of each head of cattle shall be valid.

259. *Removal of Grass.*—The cutting and removal of grass shall be permitted under cover of permits on payment of prescribed fees. As per G.O. Ms. No. 351, Forests and Fisheries Department, dated 19th April 1979. Monsoon grass shall be permitted to be removed at the rate of Re. 0.60 per head load and Rs. 10 per cart-load with effect from 1st April 1979.

260. *Penning.*—No penning shall be allowed in this division. Areas closed to grazing will be indicated by red sign boards fixed at salient points.

261. *Water Facilities.*—There are no tanks or ponds within the Reserve to provide water facility to cattle. The terrain of the division is also not suitable for digging of tanks etc. Therefore it is suggested that check dams beconstructed across the seasonal streams to improve water drinking facility. The decision may be taken by District Forest Officer in this regard.

Section 7—Fire Protection.

262. Almost all the fires occuring in this division are caused by graziers with the object of getting tender grass after rains.

263. *The general fire protection measures are prescribed as follows.*—(i) As fires are usually caused by graziers the area burnt should be closed to grazing as a punitive measures as per the provisions in the forest manual.

(ii) Fire tracing of upper boundaries of the reserves of all ranges and inter reserve lines shall be attended by clearing to a width of 6 metre. The cart-tracks, foot-paths, roads, plantations boundaries shall serve as internal fire lines where in one metre guide lines will be cleared on either side.

(iii) If any fire occurs, attempt should be made to investigate the cause of fire and culprits when traced should be prosecuted.

(iv) The contractor of leasees held responsible for the incidence of fires in their lease units

(v) Plantations should be safe guarded by clearing and fire tracing the fire lines.

Stretigic roads and paths have been identified as fire lines which should be cleared to width of 3 metre either-side every year.

264. List of fire lines to be maintained annually—

Name of the Range.	*List of fire lines.*	*Length in K.M.*	*Width in Metre.*
(1)	(2)	(3)	(4)
I. Palani Range ..	I. Ganguvarodai to Palani's Bridle path.	7.4	1.22
	II. Palani to Kodaikanal Metal Road.	15.3	6.10
II. Kannivadi Range ..	I. Oddanchatram-Pachalur	11.4	2.00
	II. Chitravu Road to Pandarimalai (within limit of R.F.)	4.00	2.00
III. Bodi Range ..	I. Interstate Boundary between Bodi Range and Kerala State.	45.0	3.00
..	II. Sothuparai to bodi path ..	15,0	2.00
	III. Kottagudi to Top Station ..	7.2	2.00
	IV. Mundal to Bodimettu ..	8.0	2.00

265. Annual Estimate for the fire proection for each range will be submitted by accompanied a map of the Range on a scale of 1" = 1 mile showing the disposition of fire lines to be cleared.

266. *Fire Maps.*—Fire maps will be maintained in the District Forest Office for each reserve on scale of 1cm=150cm. in accordance with standing orders. Every case of fire will be marked on the maps, serial numbers being given to fire in chronological order. The date of fires will be shown on the maps. One set of fire maps will be used for five sucessive years, fires of each year being distinctly marked with the different colour or symbols.

267. *Fire Control Journal.*—A bound note book containing information of areas closed on account of the fire protection measures taken and details of fire incidence of fire in each range will be maintained in District Forest Office. The observation of the District Forest Officer in the adequancy or inadequancy of the measures prescribed shall also be recorded.

Section 8—Roads and Paths.

268. A list of roads and bridle paths existing in the division is given in the Appendix No. VI to this plan.

269. The roads should be kept in proper condition and improvements of which will go a longway towards better management of the forest. It will result not only in better exploitation and utilisation of forests produce but would also enable the officers and staff to tour the forests more effectively and manage them more efficiently.

270. The major roads in Bodi, Kannivadi and Palani Ranges are maintained by Highways Department and are in good condition.

271. The condition of two major roads in Ayyalur range is deplorable. These roads be handed over to Forests Engineer to improve and metal them. The name of these roads are:—

(1) A. Kombai to Pillaiyarnatham road.

(2) Ayyalur to Thoppasamimalai road.

272. Other minor coupe roads should also be maintained under a phased programme which is left to the description of local District Forest Officer.

Section 9—Buildings.

273. A list of buildings in this division, is given in Appendix No. XI to this plan. All these buildings will be maintained in good condition. Many staff quarters were constructed long back and are in bad condition and require proper maintenance. The rest houses in this division are fairly well maintained and furnished. Certain rest houses are not used as their condition is not good.

274. No positive steps were taken in this division to over come the inadequancy of residential quarters advocated in the previous plan. For the efficient protection of forests, the executive and protective staff requires housing facilities as suitable private buildings are not available often.

275. Since many of the staff are still without quarters, a list of buildings to be constructed in future is given below. The construction work should be undertaken on priority and in phased manner since a strict years programme of construction can not be prescribed due to constraints like availability of funds and selection of site, etc.

276. *Statement showing the name of buildings to be constructed*—

A. Office Buildings.—

Description of buildings.	*Places where to be constructed.*	*Remarks.*
(1)	(2)	(3)
1 Office building for District Forest Office.	Dindigul ..	Office is functioning in rented building. A new and permanent office is essential.
2 Office building for Bodi Range.	Bodinaickanur ..	Due to bifurcation of range, new head quarters fixed at Bodi.

3 Office building for Kannivadi Range.	Oddanchatram	Since functioning in rented building hence essential.
4 Office building for Periyakulam Range.	Periyakulam	New range, hence building, to be provided.
5 Office building for Thandikudi Range.		New range, hence office building is essential.
B. *Residential Buildings*—		
1 District Forest Officer's Quarters.	Dindigul	— —
2 Quarters for ministerial staff of D.F.O's Quarters.	Do.	14, Quarters are required.
3 Quarters for Basic servants of D.F.O.'s Office.	Do.	3 number.
4 Quarters for office Watchmen	Do.	....
1. *Ayyalur Range.*—		
1 Forester's Quarters	Sendurai	New section created, Hence quarters prescribed.
2 Do.	Eriodu	Quarters not available. Hence prescribed.
3 Combined Quarters for Forest Guard and Reserve watcher.	Sendurai	....
4 Combined Quarters for Forest Guard and Reserve Watcher.	Pillaiyarnatham	....
5 Do.	Devinaickanpatty	....
6 Do.	Idayakottai	....
2. *Bodi Range.*—		
1 Ranger's Quarters at Bodi	Bodi	.. ..
3 Forester's Quarters	Do.	For Bodi Section.
3 Do.	Rasingapuram	For Thevaram Section.
4 Combined Quarters for Forest Guard and Reserve watcher.	Bodi	(1) Arungulam Beat.
5 Do.	Do.	(2) Periyakulam Beat.
6 Do.	Do.	(3) Othamparai Beat.
7 Combined Quarters for Forest Guard and Reserve Watcher.	Mundal	Pichangarai Beat.
8 Do.	Do.	Kottakudi Beat.
9 Do.	Do.	Kalugumalai Beat.
10 Combined Quarters for Forest Guard and Reserve Watcher.	Rasingapuram	Rasingapuram Beat.
11 Do.	Pottipuram	Shoolapuram Beat.
12 Do.	Thevaram	Thevaram Beat.

3. *Kannivadi Range*.—

1	Ranger's Quarters	Oddanchatram ..	....
2	Quarters for Junior Assistant	Do.	....
3	Quarters for Basic servant ...	Oddanchatram ..	....
4	Quarters for Forester ..	Kannivadi	For Kannivadi Section.
5	Quarters for Forester ...	Oddachantram ..	For Newly formed. Oddanchatram Section.
6	Combined Quarters for Forest Guard and Reserved Watcher.	Siddaiyankottai ..	Siddaiyankottai Beat.
7	Do.	Sengattampatti ..	Sengattampatti Beat.
8	Do.	Chatrappatty ..	Chatrappatty Beat.

4. *Palani Range*.—

1	Junior Assistant	Palani	....
2	Basic servant	Palani ..	....
3	Forester's Quarters	Pappampatty ...	Pappampatty Section.
4	Combined Quarters for Forest Guard and Reserve Watcher.	Varadamanathi Camp.	....
5	3 Forest Guard's Quarters ..	Varadamanathi Camp.	Newly created checkpost.
6	Combined Quarters for Forest Guard and Reserve Watcher.	Old Ayyakudi ..	For Ayyakudi Beat.
7	Do.	Kanukkapatti ...	For Kombaipatti beat.
8	Do.	A. Puthur	ForNewly formed Periyakulam beat
9	Do.	Kovalapatti	Kavalapatti beat.
10	Do.	Pappampatti ..	Andipatti East beat.
11	Do.	Andipatti	Andipatti West beat.

5. *Periakulam Range*.—

1	Ranger's Quarters	Periyakulam ..	....
2	Forester's Quarters	Devadanapatty. ..	....
3	Do.	Periyakulam	For Pambar section.
4	Do.	Do.	Periyakulam section.
5	Combined Quarters for Forest Guard and Reserve Watcher.	Devadanapatty ..	Murugamalai East Beat.
6	Do.	Endappalli ..	Murugamalai West Beat.
7	Do.	Pudukottai	Adukkam Beat.
8	Do.	Do.	Pambar Beat.
9	Do.	Periyakulam ...	Karungalthonimedu Beat.
10	Do.	Do.	Amburuvi Beat.
11	Do.	Do.	Agamalai Beat.
12	Do.	Lakshmipuram ...	Varattar Beat.

6. Thandikudi Range :

1	Ranger's Quarters	Thadiyankudisi ..	....
2	Forester's Quarters	Do.	Thadiyankudisi section.
3	Junior Assistant	Do.	....
4	Basic Servant	Do.	
5	Combined Quarters for Forest Guard and Reserve Watcher.	K.C. Patty	Periyur Beat.
6	Forester's Quarters	Ayyampalayam ..	Ayyambalayam section.
7	Combined Quarters for Forest Guard and Reserve Watcher.	Do.	Ayyampalayam Beat.
8	Combined Quarters for Forest Guard and Reserve Watcher.	Marudanathi Dam site.	Marudanathi Beat. Quarters may be got allotment from P.W.D.
9	Do.	Kanavoipatti ..	Kanavoipatti Beat.
10	Quarters for 3 Forest Guard.	Chitravu	For checkpost.

277. Efforts have been made to construct buildings in clusters so as to provide social life and security to the residents and other related facilities. Therefore, wherever, there is proposal for two and more buildings, a proper layout plan be prepared and provision for street light, drainage and water supply be planned in advance. This will help in future development into full fledged forest colonies.

278. A list of wells attached to the Departmental buildings in Dindigul Division with year of construction, cost of construction etc., is furnished in Appendix No. III to this plan.

Section 10. *Tanahs.*

279. Forest Tanahs are necessary to keep check over movement of forest produce in div sion and als o to check illicit transport of timber and fuel-wood from hill areas.

280. Following statement shows list of existing and proposed tanahs in the division :—

Serial number.	*Existing Tanah.*	*Proposed Tanah.*
(1)	(2)	(3)
1	Chitravu (Thandikudi Range)	1 At foothill of palanikodai Road i.e., P.V.Valley R.F. (Palani Range).
2	Mundal (Bodi Range)	
3	Oddanchatram (Kannivadi Range).	

281. All these Tanahs should be manned by 3 Forest Guard on rotation of 8 hours duty. At present Tanah at Chitravu in manned by only 2 Forest Guard's. The Forest Guard of old and abolished Periampatty beat should be transfered to chitravu tanah.

282. The checkpost at Perumalmalai of Kodaikanal division will become reduculant by forming tanah at beginning of P.V. Valley R.F. since there is also another tanah at Ganguvarpatti on Kodai road—Kodaikanal road. Therefore, the staff of Perumalmalai Tanah should be got transfered to newly created tanah at foot of Palani Kodai Road. And Perumalmalai checkpost should be eventually got closed.

Section 11—*Boundaries.*

283. *Boundaries are classified as follows* :—(i) State, (ii) District, (iii) Reserve Forest.

284. State and District Boundaries will be maintained and checked in accordance with the order of the Government in force. The boundary between Tamil Nadu and Kerala running through the Bodi Range is to be verified and maintained once in 3 years atleast.

285. Most of the Reserve Forest Boundaries are not maintained and R.F. stones are either missing, fallen or broken. The boundaries are often altered by adjoining " pattadars " and it should be prevented and evicted.

286. The clearance and maintenance of Reserve Boundaries though the Responsibility of the beaf subordinates has suffered due to neglect and indifference, especially inter Reserve Boundaries.

287. The reserve forest boundary has been further sub-divided into External and internal reserve boundaries.

288. *External Reserve boundary.*—It is that portion of reserve forest boundary which about the patta lands and other revenue lands.

289. *Internal Reserve Boundary.*—It is that part of reserve boundary which abouts the boundary of other adjoining reserve forest block.

290. It is external reserve forest boundary which is subjected to alteration by adjoining pattadars for making encroachments. Hence this external boundary needs periodical verification and erection of boundary pillars in cement concrete base so that further alteration of boundaries can be stopped, effectively. The detail length of internal and external reserve boundaries is given in Appendix No. XX. An abstract of these boundaries is given below :—

ABSTRACT.

Serial number.	*Name of the Range.*	*Length of the External Boundary in K.M.*	*Length of the Internal Boundary in K.M.*	*Total length in K.M.*
(1)	(2)	(3)	(4)	(5)
1	Periyakulam	118.8	49.0	167.8
2	Thandikudi	116.9	18.0	134.9
3	Kannivadi	106.3	33.6	139.9
4	Palani	113.2	33.0	146.2
5	Ayyalur	252.5	22.7	275.2
6	Bodi	16.5	..	16.5
	Total ..	724.2	156.3	880.5

(NOTE.—This does not include length of R. L. boundaries since No. S.I. sheets are available for R. L.'s and also because these boundary are subject for change at the time of final notification).

291. Accordingly five years programme of checking of actual survey and fixing R. F. stations is given below :

Serial number.	*Name of the Range.*	*Name of the R. F.*	*Length of the External Boundary in K.M.*	*Year to be checked*
(1)	(2)	(3)	(4)	(5)
1	Ayyalur	Mudimalai R.F.	16.5	1985–86, 1990–91.
		Pillaiyarnatham	38.6	
		Panjanthangi R.F.	50.0	1986–87, 1991–92.
		Thannir Karadu R.F. ..	10.7	
		Sundamalai R.F.	6.0	
		Pannamalai R.F.	10.7	1987–88, 1992–93.
		Kaluvadimalai or Sendurai R.F.	9.7	
		MungilKaradu R.F.	18.5	
		Thoppasamimalai R.F. ..	50.0	1988–89, 1993–94.
		Rangamalai R.F.	10.5	
		Karumalai R.F.	8.4	1989–90, 1994–95.
		Vandamalai R'F.	7.2	
		Idaiyakottai R.F.	15.7	

(1)	(2)	(3)		(4)	(5)
2	Thandikudi	Kokkupparai R.F.	16.9	1985-86,	1990-91.
		Umaiyar R.F.	6.4		
		Marudanadiar R.F.	24.1	1986-87,	1991-92.
		Kallar R.F.	9.7		
		Kaduvamalai R.F.	12.0	1987-88,	1992-93.
		Koviladi R.F.	4.0		
		Pambukallar R.F.	7.2		
		Kaduvamalai R.F.	0.8	1988-89,	1993-94.
		P.H.S.S. R.F.	14.5		
		Mankaradu R.F.	18.1	1989-90,	1994-95.
		Kaduguthadi R.F.	3.2		
3	Kannivadi	Vennilai R.F.	3.6	1985-86,	1990-91.
		Chatrappatty	13.3		
		Northern slope (part)	20.0	1986-87,	1991-92.
		Do. ..	19.4	1987-88,	1992-93.
		Kannian kadu R.F.	10.1		
		Siruvatkadu R.F.	16.9	1988-89,	1993-94.
		Devermalai R.F.	11.3	1989-90,	1994-95.
		Sengattampatti R.F. ..	11.7		
4	Palani	Andipatti R.F. (part)	20.0	1985-86,	1990-91.
		Do. ..	12.2	1986-87,	1991-92.
		Periyampatti R.F.	9.7		
		P.V. Valley R.F.	27.4	1987-88,	1992-93.
		Kudiraiyar R.F.	19.3		
		Vilancombai	2.4	1988-89,	1993-94.
		Oliyanuthu R.F.	9.3		
		Karadikuttu R.F.	12.9	1989-90,	1994-95.
5	Periyakulam	Amburuvi R.F.	12.9		
		Sengalvarayar R.F.	8.4	1985-86,	1990-91.
		Karungalthonimedu R.F. ..	8.9		
		Pambar R.F.	9.7		
		Agamalai and Thambiran kanal R.F.	3.2	1986-87,	1991-92.
5	Periyakulam	Adukkam R.F.	21.3	1987-88,	1992-93.
		P.H.S.S.R. F. (Varattarkanal and Iruttarkanal),	27.00	1988-89,	1993-94.
		Murugamalai	27.4	1989-90,	1994-95.
6	Bodi	Valkaradu R.F..	10.5		
		Permalkoil Karadu	6.0	1985-86,	1990-91.

292. For verifying and fixing station a post of Deputy Surveyer has been proposed in Chapter X. He will be assisted by local beat staff.

293. The Inter Reserve Boundaries are cleared once in a year and maintained. The boundaries should be checked annually and a certificate should be submitted by the Ranger to the District Forest Officer, to that effect.

294. Where ever cairns are found dismantled or pillars broken or pulled out this should be got repaired then and there.

Section 12.—*Cardamom and other leases.*

295. Major portion of the ever green forests are not directly remunrative, being in accessible for economic exploitation of timber, therefore suitable areas have been leased out for cardamom cultivation in this division.

296. The areas suitable for cardamom cultivation in the Reserved Forest of this division have already been leased out. Due, to want of suitable areas for raising cardamom, no fresh cardamom leases are prescribed during the plan period.

297. The rate has been fixed Rs. 125 per ha as per Government letter No. 60291/A/FR/III/80, dated 29th December 1980.

298. As per present policy of the Government the leases which will be expiring or beingcancelled should be splitted into 2 hec. lease area and auctioned, a fresh.

299. The other land leases granted in various institution for research purposes is already furnished in chapter I part I.

300. The particulars of different current cardamom leases in this division with their date of expiry etc., are as follows :—

Serial number.	*Name of the R.F.*	*Lease number.*	*Area in hac.*	*Voidah.*	
				From.	*To.*
(1)	(2)	(3)	(4)	(5)	(6)
		I. Kannivadi Range—			
1	Kanien kadu ..	111B	3.2	1st October 1955	5th August 1996.
2	Do. ..	122	4.0	1st April 1959	31st March 1984
3	Do. ..	175	2.0	29th December 1962	23rd December 1987.
4	Kaduvamalai ..	192	2.8	1st April 1959	31st March 1984.
5	N. S. R. F. ..	301	1.6	5th July 1964	4th July 1989
6	Do. ..	302	3.2	Do	Do
7	Do. ..	303	2.4	Do.	Do.
8	Do. ..	304	2.4	Do.	Do.
9	Do. ..	305	2.8	Do.	Do.
10	Do. ..	306	2.4	Do.	Do.
11	Do. ..	307	2.0	Do.	Do.
12	Do. ..	308	2.0	Do.	Do.
13	Do. ..	309	2.8	Do.	Do.
14	Do. ..	310	2.4	Do.	Do.
15	Do. ..	311	2.4	2nd July 1964	1st July 1989
16	Do. ..	312	1.2	Do.	Do.
17	Do. ..	313	1.2	Do.	Do.
18	Do. ..	314	2.0	Do.	Do.
19	Do	315	1.6	Do.	Do.
20	Do. ..	316	2.0	Do.	Do.
21	Do. ..	317	2.4	Do.	Do.
22	Kanlenkadu	318	2.4	Do.	Do.
23	Do. ..	319	2.0	Do.	Do.
24	Do. ..	320	2.0	Do.	Do.
25	Do. ..	321	2.0	Do.	Do.
26	Do. ..	322	1.6	Do.	Do.
27	Do. ..	323	2.8	Do.	Do.
28	Do. ..	324	2.8	Do.	Do.
29	Do. ..	325	2.0	Do.	Do.
30	Do. ..	326	2.0	Do.	Do.

Serial number.	Name of the R.F.	Lease number.	Area in ha.	Voidah.	
				From.	To.
(1)	(2)	(3)	(4)	(5)	(6)
31	Kanien kadu	327	1.6	2nd July 1964 ..	1st July 1989.
32	Do.	329	2.4	Do.	Do.
33	Do.	330	2.4	Do.	Do.
34	Do.	331	2.4	Do.	Do.
35	Do.	332	3.2	Do.	Do.
36	Do.	333	3.2	Do.	Do.
37	Do.	334	2.4	Do.	Do.
38	Do.	335	2.4	Do.	Do.
39	Do.	336	2.0	Do.	Do.
40	Do.	337	2.4	Do.	Do.
41	Do.	338	2.0	Do.	Do.
42	Do.	340	3.6	Do.	Do.
43	Do.	341	3.6	Do.	Do.
44	Do.	343	3.2	Do.	Do.
45	Do.	344	2.8	Do.	Do.
46	Do.	349	3.2	Do.	Do.
47	Do.	349	2.8	Do.	So.
48	Do.	350	5.3	Do.	Do
49	Do.	353	2.0	Do.	Do.
50	Do.	355	3.1	Do.	Do.
51	Do.	356	4.7	Do.	Do.
52	Kaduvamalai	360	2.8	Do.	Do.
53	Do.	361	2.4	Do.	Do.
54	Do.	362	2.4	Do.	Do.
55	Do.	363	2.4	Do.	Do.
56	Do.	364	2.4	Do.	Do.
57	Do.	365	2.4	Do.	Do.
58	Do.	366	3.2	Do.	Do.
59	Do.	367	2.8	Do.	Do.
60	Do.	368	2.4	Do.	Do.
61	Do.	369	2.0	Do.	Do.
62	Do.	370	2.0	Do.	Do.
63	Do.	371	2.0	Do.	Do.
64	Do.	372	6.1	Do.	Do.
65	Do.	373	4.0	Do.	Do.
	II. Thandikudi Range				
1	Pambukallar R.F.	15A	2.9	1st April 1973 ..	31st March 1983.
2	Kallar R.F.	30	1.2	Do.	Do.
3	Do. ..	35A	1.6	Do.	Do.
4	Kokkuparai	40	3.5	3rd March 1971	31st March 1985.

Serial number.	Name of the R. F.	Lease number.	Area in. ha.	Voidah. From.	Voidah. To.
(1)	(2)	(3)	(4)	(5)	(6)
II. Thandikudi Range—cont.					
5	Kadukuthadi	59	174	1st March 1965 ..	31st July 1985
6	Umaiyar R. F.	98	150	1st April 1969 ..	31st March 1984.
7	Kokkuparai R. F.	100	16.6	2nd July 1964 ..	1st July 1989.
8	Do.	114A	3.6	31st August 1978 ..	30th March 1993.
9	Do.	114B	2.4	Do.	Do.
10	Maruthanathi R.F.	124	5.7	30th November 1960	29th November 1985.
11	Kokkupparai	151A	4.9	1st April 1959	31st March 1984.
12	Do.	151B	4.0	Do.	Do.
13	Do.	151C	4.0	Do.	Do.
14	Do.	198/1	2.4	29th December 1962	28th December 1987.
15	Do.	198/2	2.4	Do.	Do.
16	Do.	198/3	2.4	Do.	Do.
17	Do.	198/4	2.4	Do.	Do.
18	Do.	198/A	3.6	2nd July 1964 ..	1st July 1989.
19	Pambukalar	202	11.3	3rd February 1962 ..	2nd February 1985.
20	Kallar R. F.	375	1.2	1st August 1971 ..	3rd July 1996.
21	Do.	376	0.4	2nd July 1964 ..	1st July 1989.
22	Do.	377	0.4	Do.	Do.
23	Do.	378	0.8	Do. ..	1st July 1989.
24	Kallar R. F.	379	0.8	Do. ..	1st July 1989.
25	Do. ..	382	1.2	5th July 1964 ..	4th July 1984.
26	Do.	383	2.4	Do. ..	4th July 1989.
27	Kadukuthadi	62	12.5	1st January 1962 ..	31st December 1981.
III. Periyakulam Range—					
1	Thambirankanal R.F. ..	121	1.7	.... ..	5th October 1996.
2	Do.	122	1.6	.... ..	4th July 1989.
3	Do. ..	124	1.6	.... ..	6th October 1996.
4	Do.	174	2.7	.... ..	Do.
5	Amburuvi R.F.	8	0.4	.... ..	4th July 1989.
6	Do.	23	2.87	....	30th August 1993.
7	Do.	113	3.7	.... ..	28th December 1987.
8	Do.	132	1.2	.... ..	Do.
9	Do.	133	0.2	.... ..	20th June 1989
10	Do.	150	0.4	.... ..	28th December 1987.
11	Do.	160	4.5	....	4th July 1989.
12	Do.	164	4.5	.... ..	1st October 1996.
13	Do.	179	2.00	.... ..	28th December 1987
14	Do.	78	14.4	.... ..	Do.
15	Amburuvi	60	6.9	....	4th June 1989.

Serial number.	Name of the R.F.	Lease number	Area in ha.	Voidah From	Voidah To
(1)	(2)	(3)	(4)	(5)	(6)
16	Amburuvi ..	162	4.5	....	4th June 1999.
17	Do. ..	31	4.78	....	30th August 1983.
18	Do. ..	201	2.14	....	30th August 1993.
19	Pambar ..	6	1.00	....	24th March 1998.
20	Do. ..	6A	4.1	....	22nd December 1993
21	Do. ..	22	2.00	....	30th March 1985.
22	Do. ..	63	1.6	....	30th December 1985.
23	Do. ..	131	6.5	....	4th July 1989.
24	Do. ..	176	1.3	....	22nd December 1993.
25	Do. ..	184	5.4	....	22nd December 1993.
26	Do. ..	189	1.62	....	3rd August 1993.
27	Do. ..	203	1.17	....	3rd August 1993.
28	Do. ..	211	2.6	....	3rd August 1993.
29	Do. ..	212	2	....	30th March 1985.
30	Do. ..	187	6.9	....	30th August 1993.
31	Do. ..	130	2.00	....	30th September 1995.
32	Do. ..	2	2.4	....	30th September 1995.
33	Senkalvaraiyar R. F. ..	3	0.3	....	6th October 1993.
34	Do. ..	47	1.6	....	1st October 1996.
35	Do. ..	50	0.8	....	5th October 1996.
36	Do. ..	52	0.8	....	5th October 1996.
37	Do. ..	69	1.6	....	2nd August 1996.
38	Do. ..	72C	2.00	....	5th October 1996.
39	Do. ..	74	8.1	....	26th July 1992.
40	Do. ..	75	1.6	....	5th October 1996.
41	Do. ..	77	0.4	....	5th October 1996.
42	Do. ..	84	5.3	....	1st October 1996.
43	Do. ..	92	0.5	....	6th October 1996.
44	Do. ..	100	0.6	....	1st October 1996.
45	Do. ..	112	3.6	....	26th July 1992.
46	Do. ..	186/2	3.1	....	13th July 1993.
47	Do. ..	208	2.8	....	4th October 1996.
48	Do. ..	240	1.5	....	13th July 1993.
49	Do. ..	276	1.6	....	31st March 1984.
50	Do. ..	54	0.3	....	6th October 1996.
51	Do. ..	52A	0·4	....	7th October 1988.
52	Do. ..	254	6·5	....	7th October 1988.
53	Do. ..	53	0·5	....	7th October 1988

(1)	(2)	(3)	(4)	(5)	(6)
	Sengalvarayar R.F. ..	65	0.5	....	7th October 1988
55	Do. ..	72/2	1.00	....	Do.
56	Do. ..	93	0.4	....	30th August 1993.
57	Do ..	186/1B	9.4	....	19th October 1993.
58	Do. ..	227	2.00	....	3rd August 1993.
59	Do. ..	251	0.6	....	22nd December 1993.
60	Do. ..	255	2.6	....	3rd August 1993.
61	Do. ..	269	1.8	....	Do.
62	Do. ..	671	2.2	....	Do.
63	Do. ..	196/1A	3.4	....	Do.

Section 13. Forest settlement.

301. The legal status of the ex-zamin and forest blocks were notified under section 4 and the forest settlement officer's at Dindigul and Bodi have notified the proclamations for all these blocks under section 6.

302. During the past plan period, out of 13 Forest Blocks, 6 Blocks have been finalised and declared as Reserved Forests. Now only 4 Forest Blocks are under process of Reservation. The District Forest Officer with help of Forest Settlement Officer may take effective steps to expeditions reservation of 3 remaining Forest Blocks.

303. The details of ex-zamins forest notificed under section 16 of the Tamil Nadu Forests Act, 1882.

Serial number.	*Name of Range.*	*Nama of Forest Block*	*Extent.* A. C.	*G.O. Ms number and dated for the notification of 16 proposals.*
(1)	(2)	(3)	(4)	(5)
1	Palani	Periampatty	1,013.61	1031, Fisheries and Forest department, dated 15th November 1975.
2	Kannivadi	Thevarmalai	952.94	913, Fisheries and Forest department, dated 30th September 1976.
3	Ayyalur	Idayakottai	2,954.86	861, Fisheries and Forest department, dated 20th September 1976.
4	Kannivadi	Chatrapatty	1,225.84	1102, Fisheries and Forest department, dated 7th December 1978.
5	Palani	Andipatty	12,739.36	1116, Fisheries and Forest Department, dated 12th December 1978.
6	Thandikudi	Kannivadi Block II ..	1,137.67	76, Fisheries and Forest Department, dated 2nd Feburary 1979.

304. A detailed description and the present position regarding the survey and settlement of the ex-zamin and Panchyat forests taken over by the forest department during the plan period is as follows :—

Number of ex-zamin Forest comes under the control of this Division—13.

Number of Forest Blocks notified U/S 16 of T.N.F. Act 6.

Number of Forest Blocks to be notified U/S 16—7.

1. Kannivadi Forest Block I.
2. Ayakudi Forest Block.
3. Kannivadi Forest Block III.
4. Thevaram Forest Block.
5. Bodi West R.L.
6. Bodi North R.L.
7. Kotagudi R.L.

305. Necessary action will be taken to speed up and complete the settlement works early, as the delay encourages the encrochments. As soon as the settlement is over the Forest area should be demarcated with R.F. stone pillars and cairns. The boundaries of some of the R.F. abuting the patta lands do not tally with S. 1 sheets. As far as possible, efforts should be taken to evict the encorachment.

Section 14.—Tamil Nadu Preservation of Private Forest Act and Tamil Nadu Hill Station (Preservations of Trees) Act, 1955.

306. The object of the Tamil Nadu preservation of Private Forest Act is to prevent the indicriminate destruction of private Forest and felling in a undulating hilly terrain. It also prohibit the felling trees without previous permission and regulate the exercise of customary rights in such forest. This may help indriectly protect the claimate, soil erosion and the locality factors.

307. To prevent the deforestation and soil erosion and to preserve the special characteristics of the hill areas as regards landscape, vegetal cover, climate, it is necessary to regulate the cutting of trees and also the cultivation of land and in hill areas an amendment has been issued in G.O. Ms. No. 1172, Fisheries and Forest Department, dated 25th October 1979 and G.O. Ms. No. 636, Fisheries and Forest Department, dated 14th April 1982. The copies of the G.O.'s are furnished in appendix No. XXI and XXI (a).

308. The details for areas notified under T. P. P. F. Act in Dindigul division is furnished in Appendix No. XXII.

Section 15.—Wild Life.

309. This division is noted for variety of Wild life and the need to Conserve and preserve the same. The Indian Wild life (Perservation) Act 1972 will applied to this division for the protection of wild life.

310. The Fauna of Palani hills is controlled by the Palani Hills Wild Life Association of which the Collector is the president and the District Forest Officer is the Honourary Secretary.

311. The eventual success of wild life conservation work will however depend on the strictness, zeal and dedication with which the existing rules are enforced.

312. Elephant and Bisons are reported to be found in Palani and Kannivadi Ranges respectively. Spotted deer found in the plain forest of this division.

313. A list of wild animals and birds met within the Division are furnished in section 2, Chapter II.

314. *Section 16.—Rain Guage Station—*

There are three forest rainguage stations in this division as follows :—

1. Rest house at Ayyalur Range.
2. Rest house at Viripakshi Kannivadi Range
3. Thandikudi—Thandikudi Range.

315. Though the first two are maintained, the third one viz. Thandikudi rain gauge is not maintained. The first two rain guage stations shall continue to be maintained and the third Thandikudi rain guage should be got repaired and maintained, during the period of the plan It need be, new rain guages should be procured and periodically inspected by the District Forest Officer. One Rain guage may be installed either in Range office or Disrtict forest office at Dindigul during this plan period.

316. *Section* 17.—*Failur Plantations.*—The consolidated list of failed plantations is appended in Appendis No. XXIII No. record are available and also not possible to locate the plantations in the ground. Hence these plantations may got write off from the Chief Conservator of Forest and may be removed from the permanent register of plantations.

Section 18.—*Control Records and Maps.*

317. Forms of control journals and other control records prescribed to control the implementation of the prescriptions of this plan are furnished in the appended separately for each of the various working circles. Proper and prompt postings of these farms woud greatly help in assessing the extent to which the prescriptions are being implemented and also will serve as basis for division improvements in future management.

318. The Control Journal should be prepared in triplicate and submitted annualy to the Conservator of forests, working plan circle through the territorialConservator of forest,as per the instructions of the Chief Conservator of forest in vogue.

319. Control maps on a scale : 4"—1 mile will be maintained to show details of areas actually planted up under Bamboo, Teak, Silk cotton, M. F. P. and Rehabilitation working circles and fuel coupes actually worked as against the prescribed area. The various control records and the deviation statement will be written up at the end of each year and copy of each submitted to the Conservator of forests.

320. *Division Note Book.*—This is an important record ment for the District Forest Officer sh wing measures of importance in the division. It should contain information under following heads :—

1. Bamboo flowering and seeding year.
2. Results of auctions, sales and their general trends.
3. Method of estimating outturn of coupes allotted to company or in auction.
4. Market prices of forest produce.
5. Labour position, rate of amount and abnormal conditions.
6. Notes on diseases.
7. Notes on grazing and its effects.

CHAPTER—X

ESTABLISHMENT AND LABOUR

Section 1.—Establishment.

321. In the intrest of intensive management and close supervision, two new ranges have been formed, namely Thandikudi and Periyakulam range. Similarly, by read justing the jurisdiction of section, six new section have been created.

322. The following statement shows the jurisdiction of ranges and sections, after proposed re-organisation

Serial number.	*Name of the range.*	*Range Head quarters.*	*Name of the section.*	*Section Head quarters.*
(1)	(2)	(3)	(4)	(5)
1	Kannivadi	Oddanchatram	Kannivadi	Kannivadi .. ..
			Virupakshi	Virupakshi .. ..
			Oddanchatram, (New) ..	Oddanchatram... ..
2	Palani	Palani	Palani	Palani .. .. ..
			Pappampatty	Pappampatty .. ..
3	Thandikudi	Thandiankudisi ..	Thandikudi	Thadiankudisi .. ..
			Ayyampalayam (New)	Ayyampalayam ..
4	Ayyalur	Ayyalur	Ayyalur	Ayyalur .. .. ..

X.

e-organisation.

Name of the beat.	*Beat headquarters.*	*Name of the R.F. and R.L.*
(6)	(7)	(8)
1 Kannivadi	Kannivadi	Kannivadi, R.L.
2 Sithaiyankottai	Sithaiyankottai	Do.
3 Sengattampatti	Sengattampatti	Sengattampatti, R.F.
1 Chatrappatty	Chatrappatty	Chatrappatty, R.F. Vennilai, R.F.
2 Virupakshi	Virupakshi	Northern slope, R.F. (part).
3 Pachalur	Pachalur	Kanniankadu, R.F.
1 Kottavali	Oddanchatram	Siruvatkadu, R.F.
2 Oddanchatram	Do.	Northern slope ,R.F. (part).
3 Arasamarathupatty	Kannivadi	Kannivadi, R.L.
1 Kombaipatty	Kombaipatty	Ayakudi, R.L.
2 Ayakudi	Ayakudi	Do.
3 Balasamudram East	Balasamudram	P. V. Valley, R.F.
4 Balasamudram West	Do.	Do.
1 Periyampatty	P. Pudur	P. V. Valley, R.F. (part). Oliyanuthu, R.F. Periyampatty, R.F.
2 Kavalapatty	Kavalapatty	Kudiraiyar, R.F.
3 Andipatty East	Pappampatty	Andipatty, R.F. (part).
4 Andipatty West	Andipatty	Do.
1 Thandikudi	Thandikudi	Kallar, R.F. and Kaduvamalai, R.F.
2 Periyar	K. C. Patty	Umaiyar, R.F. and Kokkupparai, R.F.
1 Marudanadiar	Marudanadiar Dam	Marudanadiar, R.F. and Kaduguthadi, R.F.
2 Ayyampalayam	Ayyampalayam	Kannivadi, R.F.
3 Kanavoipatty	Kanavoipatty	Mankaradu, R.F. and S.S., R.F. (part).
1 Ayyalur	Ayyalur	Panjanthangi, R.F. (part) Thanneerkaradu, R.F.
2 Pannamalai	Puthur	Pannamalai, R.F.
3 Puthur	Do.	Mudimalai, R.F.

Serial number.	*Name of the range.*	*Range headquarters.*	*Name of the section.*	*Section headquarters.*
(1)	(2)	(3)	(4)	(5)
			Vedasandur	Eriodu .. .. ..
			Sendurai (New) ..	Sendurai .. ..
5	Periyakulam	Periyakulam	Devadanapatty (New) ..	Devadanapatty .. ..
			Pambar (New)	Periyakulam .. ..
			Periyakulam	Periyakulam .. ..
6	Bodi ..	.. ..	Bodi	Bodi .. .. ..
			Mundal (New)	Mundal .. .. ..
			Thevaram	Rasingapuram .
			Theni	Theni .

(6)	(7)	(8)
1 Devinaickempatty	Devinaickempatty	Karumalai, Rangamalai, R.F.
2 Idayakottai	Idayakottai	Idayakottai, R.F.
3 R. Combai	R. Combai	Thoppasamymalai, R.F. (part).
4 Malaipatty	Malaipatty	Thoppasamymalai, R.F. (part). Moongilkaradu, R.F.
1 Sendurai	Sendurai	Panjanthangi, R.F. (part)
2 Pillaiyarnatham	Pillaiyarnatham	Pillaiyarnatham, R.F.
1 Devadanapatty	Devadanapatty	Varattar kanal and Iruttar kanal (part).
2 Murugamalai East	Murugamalai	Murugamalai, R.F.
3 Murugamalai West	Erdapadi	Do.
1 Adukkam	Pudukkottai	Adukkam, R.F.
2 Pambar	Pudukkottai	Pambar, R.F.
3 Kurungalthonimedu	Periyakulam	Karungalthonimedu, R.F. Sengalvarayar, R.F.
1 Amburuvi	Periyakulam	Amburuvi, R.F.
2 Varattar	Lakshmipuram	Agamalai, R.F. and Thambirankanal, R.F. Bodi North R.L. (part)
3 Agamalai	Periyakulam	Bodi North ,R.L. (part).
1 Arungulam	Bodi	Bodi North R.L.
2 Periyathucombai	Do.	Do.
3 Othamparai	Do	Do.
1 Pichangarai	Do.	Do.
2 Kottagudi	Do.	Kottagudi, R.L.
3 Kalugumalai	Do.	Do.
1 Rasingapuram	Rasingapuram	Bodi West, R.L.
2 Thevaram	Thevaram	Thevaram, R.L.
3 Soolapuram	Pottipuram	Bodi West, R.L.
1 Theni	Theni	Valkaradu, R.F. and Perumalkoilkaradu, R.F.
2 Muthucombai	Bodipuram	Bod iNorth, R.L.

323. To exercise effective control and supervision of works ltke regeneration, buildings agricultural operations, departmental collection of selected M.F.P. items and protection of forests, a post of Assistant Conservaror of Forests is proposed at Oddanchatyam. He will control three ranges, names Kannivedi, Palani and Thandikudi. Strengthsof ministerail staff in District Forest Officer's Office is considered adequate. Therefore, to carryout the plan prescriptions followtng additional staff required is given below :—

1	A.C.F. (Independent at Oddanchatram)	1
2	Rangers (for proposed Thandikudi and Periyakulam)	2
3	Forests (for Mundal, forester sanctioned for checkpost should be utilised)	5
4	Forest Guards (for checkposts) (Inaddition to the Existing staff) ...	2
5	Deputy Surveyor (To relocate boundary stations).	1
6	Range clerk (2nd R.C. of Bodi will be used in Periyakulam range) ...	1
7	Typist *cum* Clerk (for A.C.F.)	1
8	Basic Servants	3

The proposed staff should be got sanctioned early.

Section 2.—Labour.

324. The available labour resources of the area from various adjoining villages is squite adequate. There is no difficulty to procure labour for various forestry operations except during sowing and harvesting season of agricultural crops.

CHAPTER XI.

Financial Forecast and Cost of the Working Plan.

Section 1—Financial Forecast.

325. The following statement shows in estimated revenue and expenditure in respect of each working circle for the period of the plan: —

Serial number.	*Details.*	*Revenue.*	*Expenditure.*
(1)	(2)	(3)	(4)
		RS.	RS.
I. The Teak Working Circle—			
1	Thinning and clearing the cost at Rs. 125 per ha. for 140 ha. for one thinning.	..	17,500
	(*a*) Thinning and clearing the cost at Rs. 125 per ha. for 260 ha. for two thinning (proposed for raising plantations).	..	65,000
2	Raising of Teak plantation at Rs. 1,200 per ha. for 260 ha.	..	3,12,000
3	By sale of Teak poles through thinning at Rs. 37,800 per ha. for 260 ha. (Raising plantations).	98,28,000	..
	(*a*) By sale of Teak poles through thinning at Rs. 37,800 per ha. for 110 ha. (Older plantations in pole series.)	41,58,000	..
4	By sale of timber 480 m³ per ha. at Rs. 4,600 per m³ for 28 ha. by thinning.	6,18,24,000	..
5	By sale of softwood obtained from Ailanthus area marked for Teak plantations in Palani Range at Rs. 10,000 per ha. for 70 ha.	7,00,000	..
	Total ..	7,65,10,000	3,94,500
II. The Rehabilitation Working Circle :—			
1	By raising of plantations at Rs. 1,000 per ha. for 3,350 ha.	..	33,50,000
	Total ..	..	33,50,000
III. The Fuel Working Circle :—			
1	By sale of Fuel coupes at Rs. 1,150 per ha. for 544 ha.	6,25,600	..
2	By survey and demarcation etc., at Rs. 10 per ha. for 544 ha.	..	5, 440
	Total ..	6,25.600	5,440
IV. The Protection Working Circle :—			
1	By sale of dead wood and decaying wood at Rs. 300 per tonne for 5,000 tonnes for 10 years.	15,00,000	..
	Total ..	15,00,000	..
V. The Bamboo Working Circle :—			
1	By sale of Bamboo coupes at Rs. 10,000 per coupe for 2 coupes per year for three years.	60,000	..
2	By sale of extraction of Bamboos from older plantations at Rs. 1,500 per ha. for 20 ha. during plan period.	30,000	..
3	By Raising of Bamboo plantations at Rs. 900 per ha. for 57 ha.	..	51,300
4	By thinning and clearing the Bamboo plantations at Rs. 125 per ha. for 57 ha.	..	7,125
	Total ..	90,000	58,425

Serial number.	*Details.*	*Revenue.*	*Expenditure.*
(1)	(2)	(3)	(4)
		Rs.	Rs.
	VI. The Silk Cotton Working Circle :—		
1	By the sale of softwood by conversion for raising silk cotton plantations at Rs. 10,000 per ha. for 150 ha.	15,00,000	..
2	Raising of silk-cotton plantations at Rs. 1,000 per ha. for 250 ha. ..	..	2,50,000
3	By sale of capsules from the plantations at Rs. 1,44,000 per year for 10 years.	14,40,000	..
	Total ..	29,40,000	2,50,000
	VII. The Minor Forest Produce Working Circle :—		
1	By sale of Tamarind at Rs. 60, 000 per year for 10 years	6,00,000	..
2	By sale of other Minor Forest Produce items at Rs. 1,50,000 per year for 10 years.	15,00,000	..
3	By raising of Tamarind plnatations at Rs. 700 per ha. for 272 ha.	..	1,90,400
4	Thinning of Tamarind plantations at Rs. 250 per ha. for 273 ha.	..	68,250
5	By sale of thinning materials at Rs. 6,000 per ha. for 273 ha.	16,38,000	..
	Total ..	37,38,000	2,58,650
	VIII. The Miscellaneous Prescription :—		
1	By Raising of pinus patula plantation at Rs. 900 per ha. for 200 ha. ..	..	1,80,000
2	By Raising of Eucalyptus grandis at Rs. 1,000 per ha. for 345 ha. ..	..	3,45,000
3	By sale of Eucalyptus planatations at Rs. 100 per tonne for 2,000 tonnes	2,00,000	..
4	By maintenance of Sandal plantations at Rs. 300 per ha for 40 ha. ..	..	12,000
5	By raising of Avenue plantations at Rs. 1,000 per K.M. for 40 K.M. ..	..	40,000
6	By sale of grazing permits at Rs. 65,000 per year for 10 years ..	6,50,000	..
7	Protection from fire at Rs. 2,000 per year for 10 years ..	..	20,000
8	Maintenance of Roads and Paths at Rs. 1,000 per year for 10 years ..	..	10,000
9	(*a*) Construction of New Buildings for at Rs. 45,000 per Building for 20 for 2 buildings per year.	..	9,00,000
	(*b*) Maintenance of old buildings including wells at Rs. 2,000 per year for 10 years.	..	20,000
	(*c*) Revenue from Buildings at Rs. 1,500 per year for 10 years	15,000	..
10	Maintenance of boundaries by clearing at Rs. 10,000 per one time for 2 times (5 years interval).	..	20,000
11	Cordamom leases at Rs. 125 per ha. for 465 ha.	58,000	..
12	Compounding fees at Rs. 2,00,000 per year for 10 years	20,00,000	..
	Total ..	29,23,000	15,47,000
	IX. Establishment :—		
1	Pay and allowances of officers and establishment at Rs. 12,00,000 per year for 10 years.	..	1,20,00,000
	(a) *Motor Vehicles* —		
	Maintenance of Motor Vehicles at Rs. 24,000 per year for 10 years ..	..	2,40,000
	(b) *Contingencies :*		
	Office building rent, electric charges, stationeries, etc., at Rs. 12,000 per year for 10 years.	..	1,20,000
	Total ..	..	1,23,60,000

Abstract of Revenue and Expenditure

Serial number	Name of working circle.	Revenue in Rupees.	Expendture in Rupees.
(1)	(2)	(3)	(4)
1	Teak working circle	7,65,70,000	3,94,500
2	Rehabilitation working circle	..	33,50,000
3	Fuel working circle	6,25,600	5,440
4	Protection working circle	15,00,000	..
5	Bamboo working circle	90,000	58,425
6	Silk cotton working circle	29,40,000	2,50,000
7	Minor Forest Produce working circle	37,38,000	2,58,650
8	Miscellaneous Prescriptions	29,23,000	15,47,000
9	Establishment	..	1,23,60,000
	Total	8,83,26,600	1,82,24,015

326. Thus the anticipated surplus revenue for 10 years comes to Rs. 7,01,02,585 or Rs. 70, 10258.5 per year.

Section 2—The Cost of the Working Plan :

327. The total sanctioned strength of the working plan division was one working plan Officer, two Rangers, six Foresters, one Assistant, one Draughts man Grade II, one Steno cum Typist, Four Basic servants and one office Watch-man.

328. The Dindigul division and Kodaikanal division was taken for revision on 1st April 1980. The Dindigul division was completed on 30th June 1982 and the Kodaikanal division is under progress.

329. The cost of the working plan for Dindigul division is Rs. 3,35,654.41 and the Kodaikanal Division is 1,09,522.70 upto June 1982. The following statement shows the details of expenditure.

330. Cost for the preparation of working plan for Dindigul division :—

Head of Account.	1980–81	1981–82	1982–83 *upto June* 1982.	*Total.*
(1)	(2)	(3)	(4)	(5)
313. *A. AA. Non-Plan.—*				
AE. Working Plan Circle :				
1. Pay	70,260.85	80,396.00	24,381.55	1,75,038.40
2. D.A.	10,834.25	19,113.95	7,422.65	37,370.85
3. Medical claims	110.95	..	..	110.95
4. Other Allowances	9,386.05	10,268.80	2,968.00	22,622.85
5. Additional D.A.	2,183.50	7,383.80	2,609.40	12,176.70
02. Travel Expenses	15,247.45	14,611.45	6,177.50	35,036.40
04. Office Expenses	4,016.01	7,173.98	356.95	11,546.94
06. Rents and Taxes	6,000.00	6,000.00	..	12,000.00
Motor Vehicles :				
03. Maintenance	4,179.99	3,718.19	43.50	7,941.68
04. Cost of Fuel	8,360.69	11,603.66	1,845.29	21,809.64
Total	1,30,579.74	1,60,269.83	44,804.84	3,35,654.41

331. The cost of the plan is Rs. 3.12 per hectare.

332. Cost for the preparation of working plan for Kodaikanal division up to 30th June 1982 :—

Head of Account.	1980–81	1981-82	1982–83 (*1st April* 1982 *30th June* 1982).	*Total.*
(1)	(2)	(3)	(4)	(5)
313A. AA. *Non-Plan—*				
AE. W.P. Circle :				
1. Pay	28,649.35	25,763.60	12,217.00	66,629.95
2. D.A.	3,787.00	6,056.85	3,739.25	13,583.10
3. Other Allowance	8,170.80	6,800.25	2,063.00	17,034.05
02. Travel Expenses	6,037.00	3,792.65	2,445.95	12,275.60
Total ..	46,644.15	42,413.35	20,465.20	1,09,522.70

CHAPTER XII

Summary of Prescription

Chapter I—Basis of Proposals

Paragraph Number in Workin Plan

Scope.—The working plan is for the whole of Dindigul division .. ..

Objects of Management—(1) To protect, conserve and improve the forest vegitation, soil, water and air, (2) To stock the denuded forests by artificial planting to enhance to commercial value of the forests. (3) To achieve the maximum sustained yield of timber, firewood, Bamboos, and other forest produce. (4) To meet the general demands of local population. (5) To realise the aesthatic, recreational and educational values of the forest. (6) To protect the Fauna, preserve and improve habitat. (7) To maximise the financial returns .. ..

Methods of treatment.—The treatment to be given to different forest has been discussed and prescribed under respective working circle. .. .. ..

Working Circles.—There are seven working circles as follows :—

(1) The Teak working circle .. ..

(2) The rehabilitation working circle .. ..

(3) The Fuel working circle .. ..

(4) The Protection working circle .. ..

(5) The Bamboo working circle .. ..

(6) The Silk cotton working circle .. ..

(7) The Minor Forest Produce working circle .. ..

Period of the plan.—The Plan period will be 10 years from 1984-85 to 1993-94 and come into force from 1st April 1984. .. ..

Reconstitution of Ranges.—Two new range named Thandikudi and Periyakulam have been created with Head quarters at Thandiankudisai and Periyakulam, respectively. .. ..

Chapter II.—The Teak Working Circle

General Constitution.—The working circle includes all the existing teak plantations and the areas proposed for Convertion in to teak during the plan preiod. The stunted plantations of Ailanthus excelsa in Palani Range are also incluced for conversion. .. ..

Objects of Management.—To increase the forest resources in Commercial Timber and to produce small and large size timber to meet local demands are prescribed. .. ..

Analysis of the crop.—Teak plantations, raised in the past, are quite satisfactory except in Bodi North hill (Pudukulam) and Pambar R.F. in Periyakulam Range. .. ..

Area and allotment.—The total area of the working circle is 399.40 hectares. It has been divided into two felling series vize. Timber series and pole series. The present condition ofthe excisting teak plantations are converted as Timber and pole series, and the existing condition details are furnished. .. .. ..

Method of Treatment.—The object is to convert low quality mixed forests into valuable teak forest by artificial planting. Plantations raised in the past shall be trended suitably. Tending operations will consist of weeding, cleaning and thinning on time schedule. .. ..

Rotation.—Rotation is fixed for 60 years for Timber series and 40 years is fixed for pole series .. .. 20—22

Choice of Species.—Teak is the principle species. Bamboo will be encouraged to form a second story 23

Regulations of Yield.—No plantation will come for final felling during the plan period. The yield may be regulated by area 24

Method of Executing fellings.—All operations in this working circle will be carriedout departmentally. Cebia Pentandra and Ailanthus excelsa areas coming for planting will be sold in open auction a year in advance of planting. Similarly the Eucalyptus hybrid areas be handed over to company for working. None of the teak plantations will be coming for felling during the currency of this plan. .. 25—29

Sequence of operations.—The coupe for planting will be taken up in the sequence is prescribed for Timber series and pole series 30

Method of forming Plantations.—All the Jungle growth will be clearfelled and uprooted by end of May. Alingning and staking will be done at an espacement of 2mX2m by end of June. One year old teak stumps prepared from Nursery will be planted in Crowbar holes in the Month of July/August .. .. .. 31—33

Nursery Technique.—Standard bed will be formed and 8 to 10 kgs. of pretreated quality teak seeds will be sown per bed, by month of July of previous year. The stumps measuring about 23 cms. long (8 cm. stump and 15 cm. root portion) and about thumb thickness at collar will be prepared for planting 34

Cultural Operations.—Various cultural operations to be carriedout has been prescribed in detail, which should be adhered to. The sequence for thinning will be carried out for Timber series, as well as pole series as prescribed .. .. 35—43

Other Regulations.—All teak plantations will be specially protected from fire be clearing 5 metre wide line all around the plantations. Grazing will be closed for a period of 5 years including the year of formation. Fencing will be formed with barbed wire and maintained for 5 years .. .. 44—46

Chapter III.—The Rehabilitation Working Circle.

General Constitution.—All forests which have been worked for fuel extraction in the past, and other fuel wood plantations and those proposed for raising during the plan period are included in this working circle 47

Object of Management.—(i) To reclothe the degraded forests with suitable cover species, (ii) To prevent soil erosion to conserve moisture, (iii) To increase productivity and commercial value by restocking with suitable specis .. 48—50

Division of the Area.—The total area of the working circle is 79,107.01 hectare covering Reserved forests and Reserved Lands, including planations .. 51

Analysis of the Crop.—Types of forests, and the past planting etc., discussed 52—53

Method of treatment.—Only dead and drying trees shall be removed if necessary and economical. The silvicultural system shall be adoped to clearfell the existing useless thorny jungle scrub and planting the area with useful suitable species .. .. 54—56

Choice of Species.—Acacia, species, are more suitable Intermixed with small proportion of 5 per cent species like Tamarind, Neem shall be planted, Acacia planifrons extremely drought resistent and leased browsed by Cattle 57

Rotation.—Rotation of 30 years is fixed 58

Method of Execution and Planting Technique.—Planting technique has been prescribed in detail. It should be followed .. .. 59—65

Nursery Technique.—Nursery technique has been given and should be followed. 66

Tending Operations.—Replacement of casualities will be done with failure pits. One knife weeding and two soil working may be done in the second year maintenance. In 3rd year also one soil working shall be given along with knife weeding it necessary 67

Tabular Statement of Planting Programme.—Statement furnished in the order of sequence as marked in the map. Any work not taken up with prescribed year shoud be taken up in the succeeding year in the same sequence .. .. 68—69

Other Regulations.—Planted areas to be closed to grazing for 5 years including the year of planting Dibbling of palmyrah nuts at 4 metre along in boundary is prescribed .. ..

Control forms should be maintained properly and post upto date .. .. 70—72

Chapter IV.— The fuel working Circle.

General Constitution.—Most of the lower slopes of the hill covered in the Division has been worked in the past decades and there is no sufficient regrowth for future expoitation. These areas transferred to Rehabilitation working circle. Only two fuel felling series are prescribed out of 18 felling series to meet the fuel demand of the public under " Reserve Fuel Felling Seriet " .. .. 73—75

Special Objects of management.—(i) To produce firewood and small timber to meet local demands. (ii) To regenerate the coupes mainly through coppice .. 76

Division of the Area.—517.02 hectares is prescribed in this plan under fuel, felling in Pillaiyarnatham North and Pillaiyarnatham South series. These series should be worked after getting prior approval of the Government .. .. .. 77—81

Method of Treatment.—Silvicultural system will be " simple coppice ". Trees of economically important species like, Tamarind, Sandal and other M.F.P. yielding trees are to be reserved from felling 82

Rotation.—Rotation age is 30 years 83

Regulation of Yield.— Yield will be regulated entirely by area .. .. .. 84—85

Tabular Statement of Felling.—In each fuel series the number of coupe and year of working are indicated 86

Method of Executing Fellings.—The annual coupe coming for felling shall be surveyed and demarcated and divided into convenient 4 sections, for proper checking. 87—89

Reserved Trees.—All the " Reserved trees " should be marked and excluded from felling .. .. 90—91

Arrear and Unworked Areas of Coupes.—Provisions are made for the sale of unworked areas of coupes 92

Felling Rules.—Coupes shall be felled in an orderly manner section by section. None of Reserved trees shall be felled. Trees and other growth shall be retained to a width of 20 metre on either side of the perennial streams. Other detailed felling rules are provided 93

Agency and Period of Harvest.— Harvest will be through the agency of contractors only through public section 94

Lease.—Period will be one year from 1st April to next 31st March ..

Other Regulations.—Coupe stones to be planted at corners of the worked coupe. Worked coupes shall be closed to grazing for 5 years. Each coupe will be fenced by barbed wire. Ridge line need not be fenced. Contractors will furnish monthly statements of produce removed. Control maps and records will be posted and maintained .. ..

Chapter V.—The Protection Working Circle.

General Constitution.—The working circle comprises of all forests of evergreen type are and located at high altitudes. Few of tho ny forests have also included due to administrative reasons .. ..

Character of the Vegetation.—Generally, the crop is open badly depleted, stunted except sub-tropical evergreen pockets. .. ..

Object of Management.—(i) To provide adequate protection and given rest in order to improve the growing stock. (ii) To preserve sub-tropical evergreen forest based on environmental, water and soil conservation principles .. ..

Area and allotment.—The total area of the working circle is 26,701.28 hectares and the list of R.F. and R.L's. are given .. ..

Method of treatment.—No commercial fellings are prescribed. Only dead and dying trees to be extracted as measure of improving the crop ..

Rotation.—No commercial fellings are prescribed .. ..

Method of Executing Fellings.—No fellings are prescribed. Working of Bamboo and Minor Forest Produce will be allowed and regulated under their respective working circles .. ..

Other Cultural Regulations.—Removal of dead and decaying wood may by extracted after a proper inspection by the District Forest Officer or his Gazetted Assistant. Statement furnished for inpection and removal of dedwood from the suitable Reserved Forest .. ..

Artificial Regeneration.—To improve the stock with valuable species. Bamboo, Silk cotton, Tamarind, etc., prescriptions are made in this respective working circle. The whole area will be effectively fire protected by deducting and extinguishing the fire promptly. No grazing will be allowed from September to November. The rest will be given so that grasses may establish in the areas.

Chapter VI—Bamboo Working Circle.

General constitution.—Bamboo working circle comprises of all areas where bamboo are naturally found in workable quantity. General charactor of the vegitation has beenbriefly explained. Rest, is given from exploitation, till 1990-91 .. ..

Objects of Management.—(i) To manage the natural bamboo forests and bamboo plantations are maintained scientifically obtain maximum yiled; (ii) To meet the local demands and also of paper and pulp industries .. .. ..

Division of the Area.—There are two Bamboo felling series distributed in two ranges and the total area of the circle is 16,895.53 hectares including existing and proposed to raise plantations. Boundary description of each Bamboo felling series and the coupes with area is given .. .. ..

Analysis of the Crop.—Bamboo forests have been over worked and the crop is quite immatured .. ..

Method of Treatment.—Culm Selection System shall be followed with felling cycle of 3 years for Natural Bamboo and as well as Bamboo plantations ..

Method of Executing Fellings,— The felling will be carriedout according to the Felling Rules and the felling rules are prescribed for exploitation of Bamboos both by the Contractor and Department .. ..

Agency of Harvesting.—Harvest will be through the agency of contractor for natural bamboos and that of the plantation by department 13

Lease Period.—Lease period shall be for 9 months from 1st October to 30th June of succeeding year 135

Artificial regeneration.—Bamboo to be raised under old teak crops as second crop. Annual planting programme is furnished. Bambusa is preferred to raise according to the local site factors during the plan period. Preparation of site, espacement, pitting, planting and nursery technique are prescribed briefly .. 136–141

Tending Operations.—One weeding and soil working is enough for the year of planting. Two soil working shall be given in the 2nd year maintenance. Cleaning of clumps should be done in the 4th year. 2nd clearing and thinning shall be done in the 7th year 142

Other Regulations.—Bamboo plantation shall be closed to grazing for period of 7 years including the year of planting. Brushwood fence is prescribed and also maintained till the area is open to grazing. Wherever possible stone-wall fence should be constructed. Plantations should be properly protected from fire by forming external and internal fire lines. The control forms shall be posted at the end of every year. Instance of flowering shall be recorded in the control journal 143–146

Chapter VII—Minor Forest Produce Working Circle.

General Constitution.—The working circle covers all Reserved Forests and ReservedLands (including the Tamarind plantations) under the control of Forest department 171

Objects of Management.—(a) to ensure scientific harvesting and to improve production and obtain maximum yield of varies minor forest produces; (b) to maintain systematic statistics of outturn 172

Distribution and Availability.—The principal minor forest produces of this divisions are furnished 173–174

Division of the Area.—The working circle is divided into various lease units, for purpose of harvest of different minor forest produces 175–176

Unit of Sale.—Unit of sale will be section of each range for all the leases except Tamarind lease. The Tamarind plantations will be included in the lease units and no separate lease for plantations. Details of Range-wise lease units are furnished 177–179

Period of Lease.—The leases shall be soldout for Tamarind—six months. Gallnut for 2 years and other leases for one year are prescribed 180

Agency of Collection.—The collection of honey, wax, stains, bones, horns and tusks will be done departmentally and other items will be through the agency of contracts and in specific cases where there is demand from approved labour or Tribal Co-operative Societies, allotments will be made as per rules and orders in force 181–182

Measures of Improvement.—To improve the yield the existing Tamarind plantations will be tended by carryingout, cleaning and thinnings and the year-wise programme is also prescribed 183–189

Future Planting.—The distribution of the area for raising Tamarind plantations is also prescribed during the plan period 190–191

Method of Forming Plantations.—Area will be surveyed and clear felled before the end of April. Aligning, pitting should be completed before June. Two years of old healthy pot plants will be planted. Two weedings and soil workings will be done in first and 2nd year. Plantations will be fenced with barbed wire or stone wall fence for minimum of five years 192–197

Stone Quarry.—G od potential stone quarry in Karadikuttu R.F. Yilding high quality metal. This quarry may be worked after getting approval from Central Government 198–199

Other Regulations.—The Contractor's will funished the quantity of minor forest produce collected every months. Control form and plantation jounals shall be maintained 200–202

Chapter VIII.—The Silk Cotton Working Circle.

General Constitution.—The working circle comprises of all silk cotton plantations (except those which have converted into teak) raised during post and area now proposed for planting 147

Character of the Vegitation.—Silk cotton thriving well in moist deciduous mixed forest wherever Alluv ial soil is available. In drier area the growth of silk cotton is poor. The soft wood plantation raised during past in Pudukulam area of Bodi Range are po or and are proposed to be converted into silk cotton. 148–150

Object of Management.—(i) To convert suitable areas in the silk cotton plantation commercially more valuable crop; (ii) to nurse the existing plantations to improve the production of capsules; (iii) to maintain systematically outturn from e ch plantation 151

Distribution of Area.—Total area of the working circle is 739.53 ha. including 489.44 ha. under older pl ntations and 250 ha. proposed for planting during the plan period four planting series h ve been constituted 152–153

Method of Treatment.—Area coming up for a annual planting shall be clear-felled of existing Ailanthus crop and followed up by artificial planting with silk cotton. Disposal of cut meterails are briefly prescribed. Yield will be regulated by area 154–157

Choice of species.—Silk cotton (Singapore Vcriety) shall be the main species 157A

Rotation.—There is no data to show at what age the tree of silk cotton dies or stops production of capsules. Hence no rotation is fixed at this stage .. 158

Method of Collection of Capsules.—Collection of capsules from all plantations shall be done departmentally, If there is demand, few plantations may be allotted to the Labour Co-operative Societies. Period of collection, unit of lease, sale of capsules, etc., are prescribed 159–63

Regulation of Regeneration.—Detailed planting technique has been given .. 164 67

Other Regulations.—The plantations shall be closed to grazing for a period of 5 years including the year of planting. Plantations should be protected from fire by forming external and internal fire lines. Control forms shall be posted at the end of every year 168 170

Chapter IX.—Miscellaneous Prescription.

PINUS PATULA.

Pages

Object of Management.—(i) To convert suitable areas into economically valuable species to increase the value of the forests; (ii) o supply raw materials to the pulp wood industries; (iii) to supply of timber to packing cases; (iv) to increase the aesthitic value 203–204

Preparation of Nursery.—Standard nursery bed and technique. etc., are provided briefly 205–206

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Rotation.—A rotation of 25 years is fixed 209

Regulation of Yield.—Yield will be regulated on area basis. No plantations will come for felling during the plan period 210

Other Regulations.—Two weeding and soil working will be carried out in the initial two years. All plantations will be closed to grazing for period of five years including the year of formation. Fire tracing will be done to a width of three metres around the plantations 211–213

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General Constitution.—The main object of raising Eucalyptus plantations is to supply of fuel to the local and pulp wood to the industries 214–215

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Method of Treatment.—Failure patches above 0.25 ha. shall be gap planted. 217–218

Silvicultural System.—The silvicultural system will be followed 219

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Grazing Year.—Grazing year will commence from 1st July and ends on 30th June of the succeeding calender year. Grazing permits value and the rates etc. are provided 256–258

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APPENDIX I.

Statement showing the list of R.F. and R.L. blocks in Dindigul Forest Division.

Serial No.	*Name of the range.*	*Name of the R.F. and R.L.*	*Area of R.F. in hec.*	*Area of R.L. in hec.*	*Name of the taluk.*
(1)	(2)	(3)	(4)	(5)	(6)
1	Periyakulam	1. P.H.S.S.R.F. Varattarkanal and Iruttarkanal blocks part.	1,210.68	..	Kodaikanal taluk.
		(*Note.*—Part in Thandikudi Range and Kodaikanal Range)			
		2. Amburuvi R.F.	3,543.86	..	Do.
		3. Sengalvarayar R.F.	1,821.30	..	Do.
		4. Karrungalthoni Medu	1,134.47	..	Do.
		5. Adukkam R.F.	2,277.99	..	Do.
		6. Pambar R.F. (part)	1,639.81	..	Do.
		(*Note.*—Pambar—part in Kodaikanal Range)			
		7. Bodi North R.L. (Part) ..	..	5,166.00	Do.
		8. Agamalai and Thambiran kanal R.F.	1,582.38	..	Uthamapalayam.
		9. Murugamalai R.F.	2,794.25	..	Periyakulam.
			16,004.74	5,166.00	
2	Bodi	1. Thevaram R.L.	..	1,715.60	Uthamapalayam.
		2. Kottagudi R.L.	..	4,267.00	Do.
		3. Bodi West R.L.	..	4,199.37	Do.
		4. Bodi North R.L. (Part)	..	13,278.33	Do.
		5. Valkaradu R.F.	238.85	..	Periyakulam.
		6. Perumal Koil karadu R.F. ..	179.63	..	Do. Do.
		Total	418.48	23,460.30	
3	Thandikudi	1. Maruthandiar	1,983.39	..	Kodaikanal
		2. Kadugutiadi	149.33	..	Do.
		3. Kallar Ariyanuthuk Kanal, Komankavi Kanal.	1,275.20	..	Do.
		4. Koviladi	138.81	..	Do.
		5. Pambukallar	267.10	..	Do.
		6. Kokkuparai	600.55	..	Do.
		7. Umayar	197.00	..	Do.
		8. Koduvanur	4.393	..	Do.
		9. P.H.S.S.R.F. (Part)	1,326.26	..	Do.
		10. Mankaradu	844.36	..	Nilakottai.
		11. Kaduvamalai	578.72	..	Koda[illegible] ..
		TOTAL	7,404.65	..	

Serial number.	Name of the range.	Name of the R.F. and R.L.	Arae of R.F. in hec.	Area of R.L. in hec.	Name of the taluk.
(1)	(2)	(3)	(4)	(5)	(6)
4	Kannivadi Range	1. Vennilai R.F.	2,325.40	..	Kodaikanal.
		2. Kanienkadu R.F.	1,009.72	..	Do.
		3. Palani Hills Nothern slopes (Part). ..	821.05	..	Do.
		4. Thevaramalai R.F.	385.64	..	Dindigul.
		5. Kannivadi Block I	462.84	..	Do.
		6. Kannivadi Block II, R.L. ..	..	7,278.41	Do.
		7. Palani hills Northern slopes ..	3,863.19	..	Palani
		8. Senkattampatti	729.99	..	Nilakottai.
		9. Chatrapatti R.F.	496.42	..	Palani
		10. Siruvatkadu	1,242.42	..	Palani.
		TOTAL	11,336.68	7,278.41	
5	Palani	1. P. V. Valley R.F.	7,165.45	..	Kodaikanal.
		2. Oliyanuthu Odai	1,761.25	..	Do.
		3. Kudiraiyar (Portion)	4,344.53	..	Do.
		4. Vilancombai	67.54	..	Palani.
		5. Karadikuttu	559.23	..	Do.
		6. Pariampatti	410.20	..	Do.
		7. Andipatti	5,155.42	..	Do.
		8. Ayakudi R.L. (Part) in Kadaikanal Range).		2,203.59	Do.
		TOTAL	19,463.62	2,203.59	
6	Ayyalur Range	1. Mudimalai R.F.	1,794.92	..	Vedasandur.
		2. Pillaiyarnatham	1,756.07	..	Do.
		3. Panjanthangi	2,891.77	..	Do.
		4. Thannirkaradu	389.63	..	Do.
		5. Sundamalai	165.76	..	Do.
		6. Pannamalai	468.78	..	Do.
		7. Thoppasamimalai	3,453.06	..	Do.
		8. Moongilkaradu	710.79	..	Do.
		9. Rangamalai	411.78	..	Do.
		10. Karumalai	826.20	..	Do.
		11. Vandamalai Rangamalai ..	691.22	..	Do.
		12. Kaluvadi malai	256.37	..	Melur.
		13. Idaiyakottai	1,195.84	..	Vedasandur.
		TOTAL	15,012.19	..	

ABSTRACT.

Serial number.	Name of the Range.	R.F. Area in Ha.	R. L. Area in Ha.	Total.
(1)	(2)	(3)	(4)	(5)
1	Periyakulam	16,004.74	5,166.00	21,170.74
2	Bodi	418.48	23,460.30	23,878.78
3	Thandigudi	7,404.65	..	7,404.65
4	Kannivadi	11,336.68	7,278.41	18,615.09
5	Palani	19,463.62	2,203.59	21,667.21
6	Ayyalur	15,012.19	..	15,012.19
	TOTAL	69,640.36	38,108.30	1,07,748.66

APPENDIX II.

Statement of Rainfall (in mm.) Recorded at various rain.

Year. (1)	*January.* (2)	*February.* (3)	*March.* (4)	*April.* (5)	*May.* (6)	*June.* (7)
[a] *Ayyalur Rain Gauge Station :*						
1971	..	..	..	..	..	..
1972	..	..	..	..	..	..
1973	..	..	..	..	..	..
1974	..	..	..	..	..	..
1975	..	..	..	..	..	..
1976	..	..	..	..	..	8.1
1977	..	22.7	9.0	53.0	218.3	..
1978	..	..			149.0	
1979	..	89.0	6.2	12.5	27.0	91.0
1980	..	..	..	60.00	63.0	..
1981	..	..	..	..	..	..
(b) *Virupakshi Rain Gauge Station :*						
1971	..	..	..	..	..	..
1972	..	..	..	..	..	..
1973	..	..	..	..	..	..
1974	..	..	..	20.0	27.0	32.0
1975	..	41.5	9.5	5.0	32.2	..
1976	..	..	..	41.0	222.0	57.0
1977	..	25.2	..	47.3	69.0	16.3
1978	..	..	..	12.3	69.05	..
1979	..	8.0	..	13.0	59.0	14.3
1980	..	..	20.0	57.1	34.0	10.9
1981	..	..	..	..	..	..
(c) *Palani Rain Gauge Station :*						
1971	..	..	..	..	..	..
1972	..	..	..	..	..	..
1973	..	..	..	..	..	..
1974	..	..	3.4	41.8	76.2	..
1975	2.2	..	10.1	20.9	47.6	6.3
1976	..	..	..	69.8	9.08	23.3
1977	..	12.6	6.8	83.4	104.8	5.0
1978	..	..	5.5	14.0	98.8	4.6
1979	..	103.0	..	43.0	50.6	39.5
1980	..	..	5.7	28.4	64.	19.5
1981	..	..	..	..	..	..

Guage Station in Dindigul Forest Division (1971—1981).

July. (8)	*August.* (9)	*September.* (10)	*October.* (11)	*November.* (12)	*December.* (13)	*Total.* (14)
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
24.0	55.9	94.5	106.0	335.2	32.0	655.4
16.6	71.0	77.2	499.0	549.0	..	1,515.8
17.0	..	54.0	160.0	302.0	252.0	934.0
178.0	23.0	221.0	93.0	289.0	21.0	1,051.0
..	..	147.0	55.7	188.7	33 6	548.00
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	194.0	63.0	44.0	54.0	434.0
48.1	2.0	99.0	66.0	33.4	43.4	379.1
21.4	83.0	140.0	47·0	271.0	42.0	1,244.4
4.0	45.0	110.3	671.5	411.4	..	1,400.0
3.0	4.0	23.0	228.0	166.0	186.0	691.8
102.4	63.0	153.6	178.1	517.3	47.5	1,156.2
..	..	204.2	195.8	273.0	15.0	810.0
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
29.0	10.0	106.4	70.3	89.2	37.3	463.6
118.8	4.0	108.2	75.0	72.4	37.4	502.9
18.8	69.0	48.8	50.0	194.2	25.8	508.78
9.5	18.1	42.9	536.2	277.6	26.2	1,122.5
8.0	5.6	42.4	218.0	267.0	304.8	963.7
17.0	11.5	91.5	161.0	373.0	11.5	901.6
1.0	2.0	61.7	117.0	265.0	12.9	577.4
..	..	..	..	..	..	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(d) *Devatlanapatty Forest Bungalow Rain Galyge Station :*						
1971	..	..	..	..	..	..
1972	..	..	..	..	..	..
1973	..	..	..	..	..	..
1974	..	..	..	..	..	..
1975	..	..	..	..	..	..
1976	..	..	..	..	..	..
1977	..	..	..	..	..	..
1978	..	14.2	6.8	9.99	4.63	..
1979	..	13.1	8.0	2.4	6.8	3.7
1980	..	..	2.8	22.2	1.2	..
1981	..	..	14.3	..	15.4	0.8
(e) *Taluk Office, Periakulam.*						
1971	..	1.2	..	15.0	99.6	14.6
1973 ..	..	..	56.4	45.4	122.6	36.8
1974	..	..	4.0	84.0	80.3	..
1975	1.0	..	13.6	24.0	57.4	..
1976	..	..	2.0	80.8	97.8	12.7
1977 ..	..	58.0	19.0	125.8	80.4	3.0
1978	..	85.2	35.0	24.2	101.0	3.5
1979	..	115.0	5.5	16.0	53.0	30.7
1980	..	..	51.6	180.8	27.8	..
1981	9.0	..	39.8	49.4	90.2	16.4

(8)	(9)	(10)	(11)	(12)	(13)	(14)
	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	.	..	..	..
..	..	..	..	.	..	..
..	..	..	..	..	..	..
5.0	4.2	20.5	43.3	17.04	..	85.54
5.9	..	3.5	15.22	9.22	11.5	66.76
5.7	16.3	13.4	11.5	46.0	..	111.8
..	..	9.0	20.1	20.2	0.9	76.4
0.8	7.6	14.3	..	..	..	53.2
7.6	3.8	197.8	195.5	123.6	43.4	702.1
28.1	44.9	67.3	164.0	55.4	197.8	818.7
25.8	22.8	157.6	44.7	22.8	15.4	457.4
54.0	38.0	213.0	46.7	57.9	6.7	512.3
9.4	59.0	43.4	123.0	159.9	..	588.0
13.0	66.0	75.0	456.0	182.3	..	1,078.5
38.0	..	28.0	136.5	128.0	126.00	703.4
24.9	11.2	144.4	202.8	540.0	13.3	156.6
11.6	26.00	28.0	210.2	161.6	e1.6	789.2
28.4	61.8	95.3	296.8	35.8	42.4	756.3

APPENDIX No. III.

List of wells maintained in Dindigul Division.

Serial number.	Location.	Year of construction.	Capital Cost.	Depth in Metre.
(1)	(2)	(3)	(4)	(5)
	I. Kannivadi Range			
1	Well at Virupakshi	1909–10	199.62	6.0
2	Well at Pachalur	1898–99	193.15	3.0
3	Well at Oddanchatram	1973–74	6,948.44	18.8
	II. Ayyalur Range—			
1	Well at Pillaiyarnatham	1913	167.00	9.1
2	Well at R. Combai	1914	200.00	6.1
3	Well at Sendurai	1907	100.00	8.1
4	Well at Ayyalur	1914	200·00	10.3
5	Well at Malaippatty	1937	153.00	9.1
	III. Thandikudi Range			
1	Well at Thandikudi	1899	100.00	7·5
	IV. Bodi Range—			
1	Well at Devadanappatty	1907	400.00	8·1

APPENDIX No. IV.

List of rigits and concession in Dindtgul Division.

Serial number and Name of the lease holder.	*Details of lease.*	*Lease Amount.*	*Vaidha upto.*	*Orders.*
(1)	(2)	(3)	(4)	(5)
		Rs. P.		
1 Thiru R. C. Kesavamoorthy, Pattipurampatti.	Use of 12 feet Road passing through Cardamom L. No. 39 (A&B) in Kokkupparai R.F. and passing through Koduvanur R.F. to Estate.	500.00	31st March 1983.	C.C.F's D.Dis. 24707/82 /4, Dated 14thJune 1982.
2 Thiru K. R. Singaram Chetty, Palar.	Errection of temporary shed for instaling an electric motor near st one quarry of Karadikuttu R.F. (This item is pending in High Court).	120.00	31st March 1981.	D.F.O's. No. 5186 /78, Dt. 12th September 1978.
2 Agriculture University, Coimbatore.	For carrying out research work Regarding Banana in Pambukkallar R.F. (7.25 Acres).	50.00 per Hecta.	..	G.O. No. 68, F&F.d Dated 1st February 1978

APPENDIX V.

Glossory of Local and Scientific names of common plants found in Dindigul Forest Division.

Serial number.	*Botanical name.*	*Local name.*
(1)	(2)	(3)
1	Abrus precatorious	Kundumani.
2	Acacia nelotica	Karuvelam.
3	Acacia concinna	Seeyakay.
4	Acacia ferruginea	Parambai.
5	Acacia intsia	Earuindu.
6	Acacia latream	Odai, Odaiseethai, Muleseethai.
7	Acacia leucophloea	Velvelam.
8	Acacia pennata	Vellaiindu.
9	Acalypha fruiticosa	Chinni.
10	Acacia planifrns	Sithai, Salaix, Kodiavel.
11	Achyranthes bidenta (aspera)	Nayuruvi.
12	Acrocarpus fraxinifolius	Nellarai.
13	Acronychia learifolia	Vidukamalai.
14	Actinodaphane lawsonil	
15	Actinodaphane madraspatana	Thati.
16	Adina cardifolia	Manjakadambai.
17	Agave sp.	Kathazhai, Nyanji.
18	Aglaia sp.	
19	Ailanthus excelsa	Poomaram.
20	Alangium lamarckii	Alinji.
21	Albizzia amara	Usal, Usil.
22	Albizzia lathami	Oddu usil.
23	Albizzia odoratissima	Silai, vagai, Selavagai.
24	Albinzia lebbeck	Vagai.
25	Allophylus cobbe	Perrakudikai.
26	Allophylus serratus	Sinasalla.
27	Alotonia Scholaris	Elalai palai, palai.
28	Anemo perivalaris	
29	Anogoissus latifolia	Vekkalai, Namai.
30	Anona squomosa	Sithapala maram.
31	Antidesma diandrum	Asari puti.
32	Antidesma menasu	
33	Aromaria neilgherrensis	
34	Ariseema Leschemultu	
35	Ariseema tortousum	
36	Aristolochia sp.	
37	Artocarpus integrifolia	Pila, pala.
38	Asparagus species	
39	Atalantia monophyila	Kattu Elumichai, Kurunthai.
40	Azadirachta indica	Vembu, Veppam.
41	Balsamodondron berryi	Kiluvai, Mulkiluvai.
42	Barileria sp.	Karun Kurukeje.
43	Bassia latifolia	Kattuilluppai.
44	Bassia longifolia	Illuppai.

(1)	(2)	(3)
45	Bau inia recemosa	Athi.
46	Berberis tinctoria	
47	Bischofia Javanica	Malai puvarasu, Solai.
48	Bombax malabaricum	Elavam, Olagu.
49	Borassus flabollif.r	Panamaram.
50	Boswellia serrata	Vellai Kungulium.
51	Broyina potana	
52	Bridelia retusa	Adamaruthu, Mulvengai.
53	Bridalia rexburghiana	
54	Buchanania latifolia	Sarai.
55	Buton frondosa	Elai porasu.
56	Cadaba india	
57	Cadaba trifoliata	
58	Caesalpinia bonducella	Kalichikai.
59	Caesalpinia mimosoides	
60	Calamus sp.	
61	Callicarpa lanata	
62	Calophyllum tomentosum	Sarakidamaram.
63	Calophyllum wightianum	Do.
64	Colotropis gigantea	Erukku
65	Canarium procera	Karungkungilium.
66	Canthium didymum	Kavugu, Sulundu.
67	Canthium neilgherrense	
68	Canthium praviflorum	Madhukarai.
69	Capparis herrida	Athandan, Sengam.
70	Careya arborea	Kolama.
71	Cari sea corandos	Kila.
72	Carissa spinarum	Sirukila.
73	Caryota urens	Kundal Panai.
74	Casearia tementosa	Nedumarai.
75	Casearia coriaca	
76	Cassia auriculata	Avaram.
77	Cassia fistula	Konnai, Sarakonnai.
78	Cassia marginata	Senkonnai, Karunkonnai.
79	Cassia montana	Malai Avaram
80	Cassia fera	Tharai
81	Cassia occidentalis	Thaga ai
82	Cassia siamea	Ponnavaram
83	Cassia tomentosa	Kattuaveram.
84	Codrela toona	Chandanavembi.
85	Colastrua paniculata	Manjakadai.
86	Colosia pulchila	
87	Coltia wightii	Vellai thuvarai.
88	Chukroasia tabulavis	Agil.
89	Chlorexylon swietenia	Persau.
90	Cinnamomum wightii	Vettadu.
91	Cinnamomum seylaicum.	Lavangapattai.
92	Cipadessa bacciferra	Savathuchedi.

(1)	(2)	(3)
93	Cissampolos pareira	Appatta.
94	Clausena Willdenovil	Ama.
95	Cloistanthus collinus	Oduvai , odugin.
96	Clematiagouriana	
97	Clematis wightiana	..
98	Clerodendrom serratum	Chirruthelak.
99	Cochlospermum gossypium	Kudhirai Pudukuannu
100	Coffea arabica	Coffee, Kapi.
101	Coffea robusta	..
102	Combretum en ovalifolium	Odaikodi.
103	Convolvulus flavus	....
104	Cordia fulvosa	Nariviti.
105	Cardia myxa	Kaovirusu, virusu.
106	Cordia macleadii	Palantekku.
107	Cordia wallichii	Vaghukkai.
108	Cotoneaster buxifolia..	....
109	Crataeva religicoa	Mavilangam.
110	Cratolaria species	....
111	Croton species	....
112	Cryptolopis buchanani	....
113	Cycas circinalis	Kunju, petenju.
114	Dalbergia latifolia	Thothagathi, Erupouttu.
115	Dalbergia paniculata	Pachalai, Vellurvi.
116	Dalberigia Siasoo	Sissoo.
117	Ralbergia coromandeliana	Viruvettai.
118	Daphniphylium glaucescens	Scluvum.
119	Datura stramonium	Umathai.
120	Dendrocalamus Strictue	Sirumungil.
121	Dicscorea oppositifolia	....
122	Diospyrus montana	Vakkanai,
123	Diospyrus melanoxylon	Karunthumbi.
124	Dicoscus leschenaulti	....
125	Dadonace viacoan	Virali.
126	Dolichandrano falcata	Kadalati.
127	Elaeagunus kologa	Kulanji.
128	Elaeocarpus oblongus	Attangottai.
129	Elaeocarpus ferruginous	....
130	Elaeocarpus sorratus	Karai.
131	Elaeccarpus munroli..	....
132	Elaeocarpus tubreculatus	Pattachi.
133	Elaeodondron glaucum	Karukkuvachi.
134	Elatteria cardamomum	Elam.
135	Embolia robusta	--
136	Eriodendren enfractousum	Elavam.
137	Erythrina indica	Kalyanamurukku.
138	Erythrina subersa	Muitumurukku.
139	Erythroxylon Monogynum --	Sempulichan, Devadaru.
140	Syaygium cumini	Navai.

(1)	(2)	(3)
141	Euonymus cronulalus	....
142	Euphorbia antiquaorum	Potholathi.
143	Euphorbia tirucalli	Tirukkukalli.
144	Eurya japonica	....
145	Evodia rexburghiana	Kattu shoengam.
146	Feronia elephantum	Vilo.
147	Ficus glomerata	....
148	Ficus bengalensis	....
149	Flacourtia ramontchi	Shettukala, Kodikarai.
150	Flugges micarccarpa	Vellapula
151	Corcinia combogia	Korukkaipuli
152	Gardenia sp.	Kalveerai
153	Gardenia turgida	Melankarai
154	Garuga Pinnata	Uthiyan
155	Gardeniagummif.ra	Kumbili pisin
156	Goultheria frangrantissima	Kolakkai
157	Gelonium lanceolatum	Kakaipali
158	Glvotia retrorilormis	Velthodte
159	Glochidion velutinum	Panickaru
160	Gloriosa superba	
161	Gmelina arborea	Kumil, kumia
162	Gmelina Asiatica	Mulkumir, Nirkumil
163	Gordonia obtusa	
164	Growia orbiculata	Uduppai
165	Grenia tiliaefolia	Thadasu, Vazhukkai
166	Gymnosporia montana	Kattangi, Elomullu
167	Gyrocarpus jacquine	Thanekku
168	Hardwickia binata	Achan
169	Helicteres isora	Valamburi
170	Hemicyclia sepiaria	Virai, Veerai
171	Hemidesmus indicus	Nannari
172	Hiptage madablota	Madavi
173	Holarrhena antidysenterica	Palai, Veppalai
174	Holigarna arnottiana	Karungarai
175	Holoptelea integrifolia	Avai, Aya
176	Hopea paravi flora	Kongu
177	Hugonia mystax	Motirakodi
178	Hydnocarpus wightiana	Maravattai
179	Hydnocarpus alpina	Koranguathalai
180	Ichnocarpus frutescens	Vethalai Kodi
181	Ilex wightiana	Vellodai
182	Indigofera sp.	
183	Ipomaca sp.	Comankodi kakatan
184	Isonandra candolleana	
185	Ixora parvi flora	
186	Jasminum sp.	
187	Jatropha cureas	Kattamanakku
188	Kydia calyoina	Vendai, Thuthai

(1)	(2)	(3)
189	Lantana camara	Puchedi, Unnichedi
190	Lawsonia alba	Marudhani
191	Limonia alata	Naivela, Kattuelumitchai
192	Litsea decoanenisa	Perumbandati
193	Loranthus sp.	Pulluruvi
194	Maba buxifolia	Karunthuvarai
195	Machilus macrantha	Kolarmavu
196	Macaranga indica	Battakanai, Thenna
197	Mahonia esculei	
198	Mallotus philippinensis	Kanapottu
199	Mangifera indica	Mamaram
200	Meppia festida	Arali
201	Molia dubia	Malai vembu
202	Meliesma wightti	Tode
203	Memecylon edule	Kasan, Kayan
204	Mesus forres	Nangal
205	Miliusa velutina	Pochanji
206	Mimusops hoxandra	Kanupalao
207	Mimusops elengi	Magilan
208	Morinda citrifolia	Manjanathi
209	Morinda tinotoria	Nona
210	Moringa pterygosperma ..	Kattumurungai
211	Mundules suberosa	Vellaporusu
212	Murraya exotica	Kariveppilai
213	Musa sp.	Vazhai
214	Mussneoda hirsutissima ..	
215	Myristica attenuata	Amaie
216	Naucles purpurea	Nirkadambai
217	Nepheliuim longana	Koorappu
218	Ochalandra sp.	Ithai, Othai
219	Ocimum sanctium	Thulasi
220	Odina wodier	Udiamaram
221	Olea glandulifora	
222	Opuntia dillenni	Kalli, Chappathi Kalli
223	Pandanus sp.	Thalai
224	Passiflora sp.	
225	Pavetta indica	Pavattai
226	Phoebe wightii	
227	Phoenix sylvestris	Echan
228	Photinia notoniana	
229	Phyllanthus omblica	Nalli
230	Piper sp.	
231	Pithecolobium dulce	Kodukkatpuli
232	Pittosperam nilghirense	
233	Pittosporam flaribundum	Kattu sambangi
234	Plectronis neilgherrensis	
235	Plumeria acutifolia	Kallimandarai
236	Polygonum sp.	

(1)	(2)	(3)
237	Pongamia pinnata	
238	Porana malabarica	
239	Premna tomontosa	Podungunari, Konkattai teak
240	Premna cordifolia	
241	Premna integrifolia	Minnai
242	Prosopis spicigers	Vanni
243	Prosopis juliflora	
244	Peotium caudarum	Senkiluvai, Malankiluvai
245	Pychotria elangata	
246	Pterocarpas marsupium	Vengai
247	Pterolobium indicum	Kari, indu, inda
248	Pterospermum suborifolium	Pilayu, Sembodugu
249	Pygoum gardneri	Kodalai
250	Pygeum wightianum	Irumbikanni
251	Randia dumetorum	Karai
252	Randia malabarica	Pidathi
253	Randia uliginosa	Kalikarai
254	Ranunculus sp.	
255	Rhododendron nilagiricum	Puvarasu
256	Rhodomyrtus tementosa	Thavittupazham
257	Rhus mysorensis	Chennavarai
258	Rubus ellipticus	Seendu
259	Rubus sp.	
260	Santalum albums	Santhanam
261	Sapindus omarginarus	Nalikottan, Poondhikottai
262	Schefflera racemesa	Kannemaram
263	Schrebera swietencides	Mahalingam
264	Soutia indica	Thoratti
265	Somocarpus anarcardium	Shonkottai
266	Shorea talura	Kungulium, Maramaram
267	Sideroxylon tomenrosum	
268	Simlax sp.	
269	Solamum sp.	
270	Sterculia foetida	Peenarimaram
271	Stryxhnos nuxvomica	Kanjiram, Eddie
272	Strychnos muxvomics	Thethan
273	Symplocos obrusa	
274	Symploxcs spicata	Kamblivetti
275	Syzygium arnottianum	Naval
276	Taberracmontana heynena	Nandivattai
277	Tamarindus inica	Puliah
278	Torminalis arjuna	Veilaimarudhu
279	Torminalia bellerica	Thani
280	Terminalia, catappa	Vathakottai
281	Terminalia chebula	Kadukkai
282	Terminalia penculata	Pillaimarudhu
283	Terminalia tomentosa	Kattumarudhu
284	Thesphesia lampas	Kattu marudhu

(1)	(2)	(3)
285	Thovotia nerifolia	Thiruvachippa
286	Tiliacora racemosa	
287	Toddalis aculeata	Milagurunai
288	Toddalia Asiatica	Kattumilagu
289	Trema orientalis	Meena, Ambaruthi
290	Turpinia nepalensis	Nile
291	Urena iobata	Ottatti
292	Vaccinium meilgherrense	Kila
293	Vateria indica	Kungiltam
294	Ventilogo maderas patana	Vembadam
295	Vernonia arborea	Sheitih
296	Vernonia sp.	
297	Vitex atlissima	Myldi
298	Vitex negundo	Nochi
299	Walsurs piscidia	Valsura
300	Webera corymbosa	Thirani, Pavathai
301	Wenali‹dia notenianna	Kadambam
302	Wrightia tinctoria	Pelai, Veppalai
303	Zingiber officinalie	Ingi
304	Zizyphus jujuba	Rlandai
305	Zizypius ceniplia	Soorai
306	Zizyphus trinervia	Karikattam
307	Zizyphus xylopyrus	Mulkottani.

APPENDIX NO. V-A.

List of local names to Botanical names flora in Dindigul division.

Serial number.	*Local name.*	*Botanical name.*
(1)	(2)	(3)
1	Achan	Mardwickia binata
2	Adamaruthu	Terminalia paniculata
3	Adamarudu, Mulvengai	Bridelia retusa
4	Agil	Chukrosia tabularis
5	Alingi	Alangium lamarcki
6	Amai	Myristica attennata
7	Appataa	Cissampelos pareira
8	Arali	Mappia foctida
9	Asariputti	Antidesma diandrum
10	Athandam	Capparis horrida
11	Athi	Bauhinia racemosa
12	Attangottai	Elaeocarpus oblongus
13	Avaram	Cassia suriculata
14	Avadi, Aya	Holoptelea integrifolia
15	Battakanni	Macaranga indica
16	Chandanavombu	Cederela toona
17	Chennavarai	Rhus mysorensis
18	Chinni	Acalypha fruticosa
19	Chiruthelak	Clerodendron scrratum
20	Coffee	Coffee arabica
21	Echam	Phoenix Sylvestris
22	Elalaipalai	Alstonia scholaris
23	Elam	Eletteria cardamomum
24	Elandai	Zizyphus jujuba
25	Elavam	Bombax malalaricum
26	Elaiporasu	Butea frondosa
27	Etti	Strychnesmux venica
28	Erukkan	Calotropis gaigantea
29	Eunju	Cyca cricinalis
30	Ingi	Zingiber officirale
31	Illupai	Bassia latifolia
32	Irumbikanni	Pygem gardneri
33	Ithai	Ochalandra sp.
34	Kadalathi	
35	Kadambam	Wendlandia notoniana
36	Kadukkai	Terminalia chebula
37	Kalichikai	Caesapinia bonducella
38	Kalikarai	Randia uliginesa
39	Kalyanamurukku	Erythrina indica
40	Kalli	Opuntia dillenni
41	Kalvirusu	Gardenia sp.
42	Kallimandarai	Plumeria aeutifolia
43	Kambilipsin	Simplax spictata

(1)	(2)	(3)
44	Kannomaram	Schrebera racemosa
45	Kannuputtu	Mallotus philippinensis
46	Kannupalai	Mimusopa hexandra
47	Karai	Randia dumetorum
48	Karikattan	Zizyphus trinervia
49	Kariveppilai (Kattu)	Murraya exotica
50	Kariveppili	Murraya bosengil
51	Karindu	Pteralobium indicum
52	Karuvelam	Acacia Nelotica
53	Karkuvachi	Elacodendron glanouni
54	Karuindu	Acacia intsia
55	Karungarai	Holigarna arnottiana
56	Karumaruthu	Terminalia tomentosa
57	Karumthumbai	Diospyros molanylon
58	Karum konnai	Cassia marginate
59	Karunkuringi	Barleria sp.
60	Karunkungulium	Canarium procera
61	Karvvai	Prosopis spicigers
62	Kasan	Minecylon edule
63	Kattamanakku	Jatropha curcus
64	Kattu elumichi	Atala ntia menephylla
65	Kathalai	Atoe vera
66	Kattuillupai	Bassia latifolia
67	Kattumurungai	Moringa pterygosperma
68	Kattusemvangi	Pitiosporum floribundum
69	Kattu avaram	Cassia tomentosa
70	Kattu sholagam	Evedia roburghiana
71	Kattangi	Gymnosporia mentana
72	Kattuparvthi	Thespesia lamps
73	Kattuparvthi	Ioddalie asiatica
74	Kila	Carissa carandus
75	Kila (siru)	Carissa apinarum
76	Kilucal	Balsamodendron berryi
77	Kodukapuli	Pithecalobium dulce
78	Kodalai	Pygeum gerdneri
79	Kolarmavu	Machilus macarath
80	Kolama	Careya arborea
81	Kongu	Hopea parviflora
82	Konnai	Cassia fistula
83	Koondapanai	Caryota urena
84	Koorappu	Nephelium longana
85	Koranguthalai	Hydnocarpus alpina
86	Korukapali	Carcinia cambogia
87	Kudiraipudukku	Cochloapermum gossypium
88	Kumil	Gmelina arborea
89	Kundumani	Abrus indica
90	Kungilium	Shorea talura
91	Kungilium	Vateria indica

(1)	(2)	(3)
92	Karanga	Strobilanthus Zeylanicus
93	Madavi	Hiptage madblota
94	Madukarai	Canthium parviflorum
95	Magilam	Mimusops elengi
96	Mahalingam	Schrebera swieteniodes
97	Malaiavaram	Cassia montana
98	Malaivembu	Molia dubia
99	Malaipuvarasu	Bischofia javanica
100	Mamaram	Mangifera indica
101	Manjaikadambu	Adina cardifolia
102	Manjakodia	Celastrua paniculata
103	Manjanathi	Morindacitrifolin
104	Maravatti	Hidnocarpus wightiana
105	Marudani	Lawsonia alba
106	Marulingam	
107	Mavilangam	Careteva religiosa
108	Mecana	Trema orientalis
109	Melankarai	Gardenia turgida
110	Milakaranai	Toddalia oculeata
111	Minnai	Premna intergifolia
112	Modirakodi	Hugonia mystax
113	Mullumurukku	Erythrina suberosa
114	Mulkumir	Gmelina asiatica
115	Mulkottani	Zizyphus xyloyrus
116	Mulsethai	Acacia latronum
117	Mulvengai	Bridelia retusa
118	Myladi	Vitex altissima
119	Naivelai	Limonia alata
120	Nalikottan	Sapindus emarginatus
121	Namai	Anoegeissus latifolia
122	Nangal	Mesua ferrea
123	Nandiavatti	Taberranea montana heyneana
124	Nannari	Homidesmus indicus
125	Narivitti	Cordia fulvesa
126	Navai	Syzygium cumini
127	Naval	Syzigium arnottinaum
128	Navugu	Plectronia didyma
129	Nayuruvi	Achyranthus bidenta
130	Nedumarai	Casearia tomentosa
131	Nellarai	Acrocarpus fraxinifolius
132	Nelli	Phyllanthus emblica
133	Nila	Turpinia nepalensis
134	Nochi	Vitex Negundu
135	Nona	Norinda tinctoria
136	Odaikodi	Combretum ovalifelium
137	Oddu usil	Albizzia lathami
138	Oduvai	Cleistanthus collinus
139	Oomankodi, kakattan	Ipomea Sp.

(1)	(2)	(3)
140	Ottatti	Urena lobata
141	Panamaram	Borassus flabellifer
142	Pachalai	Dalbergia paniculata
143	Palantekku	Cordia macleodii
144	Palai (Vepalai)	Wrightia tinctoria
445	Panickaru	Glorhidion rotteriformis
146	Parambai	Acacia ferruginea
147	Pattachi	Elaeocarpus tubreculatus
148	Pavattai	Pavetta indica
149	Parrakudikai	Allephyllus cobbe
150	Peemaram	Ailanthus excelsa
151	Peenarimaram	Streculie feetida
152	Perumbandati	Titsea deccanensis
153	Pidathi	Randia malaberica
154	Pila	Artocarpus integrifolia
155	Pillamaruthu	Terminalia pansiculata
156	Pilaya	Pterospermum suberifolium
157	Podungunari	Premna tementosa
158	Pohanji	Miliusa velutina
159	Ponnavaram	Cassia siamea
160	Porasu	Chlroxylon swietenia
161	Pothalathi	Euphorbia antiquoram
162	Puchdi	Lantana camara
163	Pulluruvi	Loranthus sp.
164	Pulian	Tamarindus indica
165	Puvarasu	Rhododendron nilagiricum
166	Sarai	Buchanania latifolia
167	Sarakidamarom	Calophyllum tomentosum
168	Savathuchedi	Cipadassa bacciferra
169	Santhanam	Santalum album
170	Seendu	Rubus elliptious
171	Seeyakoy	Acacia concinna
172	Sempulichan	Erythroxilon monogymum
173	Sottukale	Flacourtia ramontchj
174	Senkonnai	Cassia marginatta
175	Senkiluvai	Protium juliflora
176	Sheittch	Vernonia arborca
177	Senkottai	Semecarpus anacardium
178	Selaivagai	Albizzia odoratissima
179	Sinasalle	Allophylus cobbe
180	Sirumungil	Dendrocalamus strictus
181	Situkile	Carissa spinarum
182	Sissoo	Dalberigia sissoo
183	Sithai	Acacia planifrone
154	Sithapalam	Anona suamosa
155	Soluvam	Daphniphyllum glaucessons
1 56	Soorai	Zizyphus ocnoplia
187	Sottukala	Flacoutia ramontchi

(1)	(2)	(3)
188	Thadasu	Grewia tiliaefolia
189	Thagarai	Cassia occidentalis
190	Thalai	Pandanus sp.
191	Thanakku	Gyroaerpus jacquini
192	Thani	Terminalia bellerica
193	Tharai	Cassia tora
194	Thatti	Actinodaphane maderastpean
195	Thavittupazham	Rhodomyrtus tementosa
196	Thotham	Strychnes poterum
197	Thirani	Webere corymbosa
198	Thothagathi	Dalbergia latifolia
199	Thoratti	Scutia indica
200	Tode	Milicsma wightii
201	Tulsi	Ocimum sanctum
202	Tiruvachippa	Thevetia nerifolia
203	Tirukkalli	Euphorbia tirucalli
204	Udiamaram	Odina wodiar
205	Uduppai	Grewia orbiculata
206	Usil	Albizzia amara
207	Uthiyan	Garuga pinnata
208	Vagai	Albizzi lebbeck
209	Vaghukkai	Cordia wallichi
210	Valampu i	Helicteres isora
211	Vanni	Prosopis spicigera
212	Vathakottai	Terminalia catappa
213	Vazhai	Musa sp.
214	Vellai indu	Acacia pennata
215	Vellaikungilium	Bosweellia serrata
216	Vellaithuvarai	Celtis wightti
217	Vellaiporasu	Mundulea suberosa
218	Vellaimarudu	Terminalia arjuna
219	Vellodai	Ibex withiiana
220	Velthadai	Givotia rotterifermis
221	Veltholaikodi	Ichnocarpus frutescens
222	Vembu	Azardirachta indica
223	Velvelan	Acacia leucophloea
224	Vembadam	Ventilago maderaspatana
225	Veppalai	Wrightia tinctoria
226	Vettdu	Cinnemomum wightii
227	Vengai	Pterocarpus marsupium
228	Vidukomalai	Acronycutia laurifolia
229	Vitla	Peroniaclephantam
230	Viralai	Dodonaea viscosa
231	Virai	Hemicyclia sepiaria
232	Viruvettai	Dalbergia coremandoliana

APPENDIX NO. VI.

List of Roads and Paths in Dindigul Division.

Serial number and name of Road and path.	*Length with in the R.F. in K.M.*	*Length out side the R.F. in K.M.*	*Total length of the road in K.M.*	*Year of constructions.*	*Cost.*
(1)	(2)	(3)	(4)	(5)	(6)
I. Ayyalur Range:					
1 Ayyalur–Moongil Karadu Road ..	..	7.2	7.2	1907	1,949.00
2 Ayyalur–Sendurai Road ..	2.4	15.3	17.7	1907	7,334.00
3 Sendurai–Pillaiyarnatham Road	..	12.0	12.0	1913	4,332.00
4 Sendurai –Alampatty Road (Transferred to Highways Department as per G.O. Ms. No. 1288, Forest and Fisheries Department, dated 2nd November 1981).	..	14.5	14.5	1908	6,207.00
5 Senkurichi – Vadamadurai Road ..	..	4.6	4.6	1906	2,072.00
6 Koviloor – Thoppasami Malai Road.	...	8.3	8.3	1921	2,779.00
7 A. Kombai Pillaiyarnatham Road	8.9	2.2	11.1	1908	2,900.00
8 Veeramalai Bridle Path ..	5.0	..	5.0	1912	153.00
9 Kalpatty – Poothanatham ..	..	8.0	8.0	1912	470.00
10 Bridle path connecting Kalpatty–Poothanatham Road.	..	1.6	1.6	1912	140.00
11 Cart track Vayampatty Railway station–Koda-pitchampatty.	..	8.0	8.0	1912	46.00
12 Kalpatty–Pillaiyarnatham ..	..	2.2	2.2	1919	4,005.00
13 Kottappatty–Veeramalai cart track	..	6.4	6.4	1923	1,473.00
14 Ayyalur–Thoppasami malai ...	..	8.9	8.9	1930	2,285.00
15 Valavichetty patty – Thoppasami malai.	...	4.8	4.8	1930	1,245.00
16 Approach road R. Combai Rest house.	0.2	..	0.2	1959	448.00
II. Thandigudi Range :					
1 Jeep track–Pannaikkadu – Thandi gudi Rest house.	1.9	..	1.9	1966	5,002.00
III. Palani Range :					
1 Ganguvar Odai Bridle path ..	12.1	...	12.1	1912	4,600.00
IV. Kannivadi Range :					
1 Oddanchatram–Pachalur ..	8.2	...	8.2	1906	2,000.00
	1.6	..	1.6	1939	1,344.00
	1.6	..	1.6	1940	1,623.00

Appendix No. VII.

Species and Classification of Timber.

Teak (*Testom grandis*) :

A.L.I. (5 m. and above is length and 1.50 m and above in girth)
A.L. II (5 m. and above in length and 1.20 m. to 1.49 m. in girth)
A.L. III. (5 m. and above in length and 0.90 m. to 1.19 m. in girth)
A.S.I. (below 5 m. but not less than 2.5 m. in length and 1.50 m. and above in girth)
A. S. III. (Below 5 m. but not less than 2.5 m. in length and 1.20 m. to 1.49 m. in girth)
A.S. III. (Below 5 m. but not less than 2.5 m. in length 0.90 m. to 1.19 m. in girth.)
B.I. (2.5 m. and above in length and 1.5 m. and above in girth).
B. II. (2.5 m. and above in length and 1.20 m. to 1.49 m. in girth).
B. III. (2.5 m. and above in length and 0.90 m. to 1.19 m. in girth).
C.I. (2.5 m. and above in length and 1.5 m. and above in girth).
C. II. (2.5 m. and above in length and 1.20 m. to 1.49.m. in girth).
C. III. (2.5 m. and above in length and 0.90 m. to 1.19 m. in girth)
T.S.L. (Below 2.5 m. but not less than 1.00 m. in length and 0.90 m. and above in girth).

Teak Poles :

T.P.L.T. (9 m. and above in length and 0.75 m. to 0.89 m. in girth)
T.P.L. II. (9 m. and above in length and 0.60 m. to 0.74 m. in girth).
T.P.L. III (9 m. and above in length and 0.45 m. to 0.59 m. in girth).
T.P.L. IV. (9 m. and above in length and 0.30 m. to 0.44 m. in girth).
T.P.M.I. (6 m. to 8.9 m. in length and 0.75 m. to 0.89 m. in girth).
T.P.M. II. (6 m. to 8.9 m. in length and 0.60 m. to 0.76 m. in girth).
T.P.M. III. (6 m. to 8.9 m. in length and 0.45 m. to 0.59 m. in girth)
T.P.M. IV. (6 m. to 8.9 m. in length and 0.30 m. to 0.44 m. in girth)
T.P.S.I. (3 m. to 5.90 m. in length and 0.75 m. to 8.89 m. in girth)
T.P.S. II. (3 m. to 5.90 m. in length and 0.60 m. to 0.74 m. in girth)
T.P.S. III. (3 m. to 5.90 m. in length and 0.45 m. to 0.59 m. in girth)
T.P.S. IV. (3 m. to 5.90 m. in length and 0.30 m. to 0.44 m. in girth)
T.P.U.S. or T.P.S.V. (All lengths, and below 0.30 m. in girth)

Pillamarudu (*Terminalia paniculata*) :

Class I (2.5 m. and up in length and 1.25 m. and up in girth)
Class II (2.5 m. and up in length and below 1.25 m. in girth)

Jack (*Artocarpous heterophyllus*) :

Class I (2.5 m. and up in length and 1.25 m. and up in girth)
Class II (2.5 m. and up in length and below 1.25 m. in girth)

Rarimarudu (*Terminalia alate Syn*) (*Terminalia Tomentose*) :

Class I (2.5 m. and up in length and 1.25 m. and up in girth)
Class II (2.5 m. and up in length and below 1.25 m. in girth)

Venteak (*Lagerstroemia lenceolata*) :

Class I (2.5 m. and up in length and 1.25 m. and up in girth)
Class II (2.5 m. and up in length and below 1.25 m. in girth

Vengai (*Pterocarpus Marsupium*) :

Cfass I (2.5 m. and up in length and 1.25 m. and up in girth).
Class II (2.5 m. and up in length and below 1.25 m. in girth).

Aini (*Artocarpus b rusta*) :

Class I (2.5 m. and up in length and 1.25 m. and up in girth).
Class II (2.5 m. and up in length and below 1.25 m. in girth).

Thadasu (*Grewia t iliaefolia*) :

Cfass I (2.5 m. and up in length and 1.25 m. and up in girth).
Class II (2.5 m. and up in length and below 1.25 m. in girth).

Vagai (*Albizzia lebbek*) *Karuvagai* (*Albizzia odoratissima*) *Velvagai* (*Albizzia procere*)

Class I (2.5 m. and up in length and 1.25 m. and up in girth).
Class II (2.5 m. and up in length and below 1.25 m. in girth).

(NOTE.—Copy of the G.O. Ms. No. 829, Forest and Fisheries Department, dated 25th August 1977).

APPENDIX No. VIII.

Revenue realised from minor forest produce in Dindigul Forest Division.

Serial number and Name of the Range.	*Tamarind.*	*Bothi grass.*	*Kadukkai.*	*Avaram and Konnai Bark.*	*Other minor forest produce.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			1970-71			
1 Ayyalur ..	1,300.00	500.00	..	115.00	1,000.00	2,915.00
2 Bodi ..	750.00	1,205.00	600.00	50.00	1,750.00	4,355.00
3 Kannivadi ..	506.00	10,002.00	626.00	..	2,501.00	13,635.00
4 Palani ..	1,210.00	9,110.00	11,505.00	..	1,260.00	13,085.00
TOTAL ..	3,766.00	20,817.00	2,731.00	165.00	6,511.00	33,990.00
			1971-72			
1 Ayyalur ..	1,510.00	..	..	120.00	1,030.00	2,680.00
2 Bodi ..	825.00	1,275.00	..	..	3,252.00	5,352.00
3 Kannivadi	..	1,725.00	..	..	4,751.00	6,476.00
4 Palani ..	1,005.00	5,551.00	..	..	1,000.00	7,556.00
TOTAL ..	3,340.00	8,551.00	..	120.00	10,053.00	22,064.00
			1972-73			
1 Ayyalur ..	1,510.00	..	..	130.00	1,052.00	2,692.00
2 Bodi ..	1,600.00	1,300.00	1,251.00	120.00	3,253.00	7,524.00
3 Kannivadi ..	501.00	5,900.00	527.00	..	3,100.00	10,028.00
4 Palani ..	1,110.00	17,003.00	4,125.00	151.00	1,050.00	23,439.00
TOTAL ..	4,721.00	24,203.00	5,903.00	401.00	8,455.00	43,683.00
			1973-74			
1 Ayyalur ..	3,010.00	201.00	..	125.00	1,050.00	4,386.00
2 Bodi ..	4,015.00	1,375.00	..	..	6,000.00	11,390.00
3 Kannivadi	905.00	8,000.00	..	..	4,505.00	13,410.00
4 Palani ..	1,300.00	20,405.00			900.00	22,605.00
TOTAL ..	9,230.00	29,981.00	..	125.00	12,455.00	51,791.00

Serial number and Name of the Range	*Tamarind.*	*Bothi Grass*	*Kadukkai*	*Avaram and Konnai Bark.*	*Other Minor forest Produce.*	*Total.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			1974–75			
1 Ayyalur ..	15,000 00	..	..	..	4,510.00	19,510.00
2 Bodi ..	7,260.00	2,600.00	2,000.00	..	4,300.00	16,160.00
3 Kannivadi	3,000.00	28,100.00	1,001.00	..	7,510.00	39,611.00
4 Palani ..	4,176.00	57,010.00	13.000.00	..	1,555.00	75,741.00
TOTAL ..	29,436.00	87,710.00	16,001.00	..	17,875.00	1,15,022.00
			1975–76			
1 Ayyalur ..	4,605.00	..	..	..	2,325.00	11,930.00
2 Bodi ..	6,701.00	2,600.00	..	..	4,600.00	13,901.00
3 Kannivadi	1,500.00	..	..	..	15,605.00	17,105.00
4 Palani ..	..	..	..	..	..	..
TOTAL ..	17,806.00	2,600.00	..	..	22,530.00	42,936.00
			1976P77			
1 Ayyalur ..	10,255.00	..	..	..	3,065.00	13,310.00
2 Bodi ..	..	3,785.00	10,000.00	..	17,000.00	30,785.00
3 Kannivadi	1,500.00	6,405.00	17,000.00	..	7,610.00	32,515.00
4 Palani ..	1,520.00	20,300.00	..	..	1,200.00	23,020.00
TOTAL ..	13,275.00	30,490.00	27,000.00	..	28,865.00	99,630.00
			1977–78			
1 Ayyalur ..	..	..	..	..	3,350.00	14,750.00
2 Bodi ..	11,400.00	17,300.00	..	..	6,670.00	23,970.00
3 Kannivadi	8,000.00	9,500.00	..	..	8,000.00	25,500.00
4 Palani ..	1,910.00	..	..	..	1,668.00	3,578.00
TOTAL ..	21,310.00	26,800.00	..	..	19 688.00	67,798.00

1978–79

1 Ayyalur ..	9,735.00	..	..	..	2,185.00	11,920.00
2 Bodi ..	3,430.00	..	10,100.00	..	36,000.00	49,530.00
3 Kannivadi	4,740.00	5,100.00	10,010.00	..	7,310.00	30,165.00
4 Palani ..	1,805.00	35,300.00	40,000.00	..	6,000.00	83,105.00
TOTAL ..	19,710.00	43,400.00	60,110.00	..	51,500.00	1,74,720.00

1979–80

1 Ayyalur ..	13,320.00	..	..	..	3,100.00	16,420.00
2 Bodi ..	5,262.00	8,275.00	..	..	26,350.00	39,887.00
3 Kannivadi	11,945.00	9,710.00	..	..	9,750.00	31,405.00
4 Palani ..	855.00	26,450.00	..	..	4,605.00	41,910.00
TOTAL ..	31,382.00	54,435.00	..	..	43,805.00	1,29,622.00

1980–81

1Ayyalur ..	61,638.00	..	..	..	3,320.00	64,958.00
2 Bodi ..	614.25	26,450.00	24,410.00	..	31,300.00	82,744.25
3 Kannivadi	21,330.00	7,160.00	13,500.00	..	15,750.00	57,740.00
4 Palani ..	4,700.00	2,18,260.00	41,400.00	..	7,455.00	2,71,815.00
TOTAL ..	88,282.25	2,51,870.00	79,310.00	..	57,825.00	4,77,287.25

(3) *Rangers* 8 :

(i) G.O. Ms. No. 2969/F and A, dated 24th September 1964 2
(ii) G.O.Ms. No. 1317/F and A, dated 20th April 1964 4
(iii) G.O. Ms. No. 2431/Agriculture dated 23rd July 1966 1
(tv) G. O. Ms. No. 2842/Agriculture dated 27th Ocrober 1971 1

8

(4) *Foresters* :

(i) G. O. Ms. No. 1317/F and A, dated 20th April 1964 12
(ii) G. O. Ms. No. 2496/F and A, dated 24th September 1964 6
(iii) G. O. Ms. No. 2431/Agriculture, dated 23rd July 1966 4
(tv) G. O. Ms. No. 2843/Agriculture, dated 27rh Ocrober 1981 1
(v) G. O. Ms. No. 704/F and F., Department., dared 21st July 1977 .. 1
(vi) G. O. Ms. No. 956/F and F Deparment., dated 4th September 1979 .. 1

25

(5) *Forest guards* : 95.

(i) G. O. Ms. No. 1317/F and A, dateo 20th April 1964 47
(ii) G. O. Ms. No. 2496/F. and A, dated 24th September 1964 35
(iii) G. O. Ms. No. 2431/F. and A., dated 23ed July 1966 4
(iv) G. O. Ms. No. 2842/Agriculture, dated 27th October 1971 5
(v) G. O. Ms. No. 875/F. and F., dated 21st September 1976 2
(vi) G. O. Ms. No. 956/F. and F., dated 4th September 1979 2

95

(6) *Draughtsman grade* II-1 :

G. O .Ms. No. 97/F, and F., Department, dated 29th January 1980.

(7) *Draughtsman grade III*-1 :

G. O. Ms. No. 1317/F. and A., Department dated 24th April 1964.

(8) *Jeep Driver* 2 :

(i) G. O. Ms. No. 2842;Agri., dated 27th Ocrober 1971 1
(ii) G. O. Ms. No 97/F. and F., Department, dated 29th January 1980 .. 1

2

(9) *Lorry Driver* 1 :

G. O. Ms. No. 2554/F. and A., dated 2nd August 1962 1

(10) *Lorry Cleaner* :

G. O. Ms. No. 2554/F. and A., dated 2nd August 1962 1

(11) *Tamil Nadu Ministerial Services* :

Post of Selection Grade Assistant up-graded to Superintendent in G. O. Ms. No. 1645/F. and F., Department. 1

(12) *Junior Accountant* : .. ..

(i) G.O. Ms. No. 1317/F and A., dated 24th April 1964 1
(ii) G.O. Ms. No. 1021/F. and F. Department., dated 9th November 1976 .. 1

2

(13) *Assistant* 3 :

(i) G. O. Ms. No. 1317/F. and A., dated 24th April 1964 2
(ii) G. O. Ms. No. 2842/F. and Department, dated 27th October 1971 .. 1
(iii) G. O. Ms. No. 97/F. and F., Department dated. 1

3

(14) *Junior Assistants* 14 :

(i) G. O. Ms. No. 1317/F. and A., dated 24th April 1964 7
(ii) G. O. Ms. No. 2434/Agri , dated 23rd July 1966 1
(iii) G. O. Ms. No. 2842/Agri, dated 27th October 1971 5
(iv) G. O. Ms. No. 15/F. and F,, Dept . dated 6th January 1981 1

14

(15) *Typist* 1 :

G. O. Ms. No. 1317/F. and A., Department, dated 24th April 1964

(16) *Steno-Typist* :

G. O. Ms. No. 923/F. and F. Department, dated 5rh Ocrober 1976.

(17) *Basic Servant* 13 :

(i) G. O. Ms. No. 1317/F. and A. dated 20th April 1964 8
(ii) G. O. Ms. No. 2696/F. and A. dated 24th September 1964 2
(iii) G. O. Ms. No. 2842/Agriculture dated 27th October 1971 2
(iv) G. O. Ms. No. 388/F. and F., dated 14th April 1977 1

13

(18) *Office Watchman* 1 :

G. O. Ms. No. 641/Forests and Fisheries Department, dated 23rd June 1977 1

(19) 313A. *Forests (AA) Direction and Administration I Non-plan—Dist. Establishment—Temporary* :

Tamil Nadu Forest Subordinate Service :

Forest Ranger 2 :

(1) G. O. Ms. No. 851/F. and F. Department., dated 16th July 1981 (Temporary) 1

(2) G. O. Ms. No. 1393/F and F. Department. dated 30th November 1981 .. (Settlement) 1

(20) *Foresters* 5 :

(i)	G. O. Ms. No. 851/F. and F. Department, dated 16th July 1981 ..	2
(ii)	G. O. Ms. No. 1393/F. andF. Department, dated 30th November 1981	2
(iii)	G. O. Ms. No 343/F and F. Department dated 6th April 1981	1
		5

(21) *Forest Guards* 7 :

(i)	G. O. Ms. No. 1393, F and F. Department, dated 30th November 1981	4
(ii)	G. O. Ms. No. 343, F. and F. Department, dated 6th April 1981 ..	3
		7

(22) *Draughtsman Grade II*—1 :

G. O. Ms. No. 1393, F. and F. Department, dated 30th November 1981 .. 1

(23) *Junior Assistant* 3 :

Chief Convervator's. No. W1/14604/81-1dated 7th April 1981 3

(24) *Typist* 1 :

G. O. Ms. No. 1393, F. and F. Department, dated 30th November 1981. 1

(25) *Basic Servant* 1 :

G. O. Ms. No. 1393/F. and F. Department, dated 30th November 1981 .. 1

Tamil Nadu Forest Subordinate (*Temporary Establishment*) :

(i)	Tracer	1
(ii)	Tally Clerk	4
(iii)	Reserved Watchere's and Bungalow Watchers	80
(iv)	Office Watchman (Contingent Staff)	

(26) 313.A. *Forests Reserved Forests Plantation Scheme—JQ—Wattle Plantations* :

Junior Assistant 2 :

(i) G. O. Ms. No. 568 F. and F. dated 8th May 1981	2
(ii) *Typist* 1 :	
G. O. Ms. No. 568 F. andF. dated 8th May 1981	1
(iii) *Basic Servant* :	
G. O. Ms. No. 568, F. and F., dated 8th May 1981.	

(27) 313*A*. *Forests AF. Plantation Schemes-JK Pulpwood Plantations* :

G. O. Ms. No. 554/F. and F. dated 13th May 1981.

(i) Forest Ranger	1
(ii) Foresters	9
(iii) Assistant	1
(iv) Typist	1
(v) Basic Servant	2

(28) (ii) *G. O. Ms. No.* 233, *F. and F. Department, dated* 26*th February* 1981 :

Draughtsman Grade III	1

(29) 313A. *Forests AH. Forests Produce—J-A. Timber operation and Forest Utilisation* :

(i) Foresters	2
(ii) Forest Guards	3

(30) 313.A. *Forests AH. Forest Produce—JB Minor Forest Produce* :

G. O. Ms. No. 638, F. and F., Department, dated 23rd May 1982

Forester	1

(31) *Junior Engineers* : .. ..

G. O. Ms. No. 795/F. and F. dated 29th June 1981 :—

Junior Engineer	2
Basic Servant	1

APPENDIX No. X.

***Statement** showing the grazing particulars in Dindigul Division.*

(From 1971 to 1981)

Year.	*Cow or Bullock.*	*Sheep.*	*Buffaloe.*	*Amount realised.*	*Cow Unit Grazed.*
(1)	(2)	(3)	(4)	(5)	(6)
		I. Ayyalur Range.			
1971–72	3,292	9,633	..	8,108.50	8,108.5
1972–73	3,485	7,082	..	7,082.00	7,082
1973–74	2,837	10,434	3	8,060.00	3,097
1974–75	3,316	7,234	..	6,933.00	6,933
1975–76	2,834	7,342	..	6,505.00	6,505
1976–77	3,615	7,833	..	7,531.00	7,531
1977–78	3,494	8,688	12	7,862.00	7,862
1978–79	2,954	5,652	10	11,600.00	5,800
1979–80	2,524	5,015	2	10,071.00	5,035
1980–81	2,257	5,199	9	9,749.00	4,874.5
1981–82	..	..	..	9,833.00	4,916.5
		II. Bodi and Periyakulam Ranges.			
1971–72	3,969	10,409	102	12,377.50	12,377.5
1972–73	3,545	11,087	52	9,192.50	9,192.5
1973–74	3,097	11,363	162	9,352.50	9,352.5
1974–75	3,691	9,035	18	8,244.50	8,244.5
1975–76	3,753	6,390	320	7,588.00	7,588
1976–77	3,033	7,721	89	7,071.00	7,071
1977–78	3,100	8,407	200	7,703.50	7,703.5
1978–79	2,712	6,140	217	12,432.00	6,216
1979–80	2,669	8,230	146	14,152.00	7,076
1980–81	2,827	8,164	496	15,832.00	7,916
1981–82	2,607	10,115	269	16,405.00	8,202.5
		III. Palani Range.			
1971–72	8,419	2,945	150	10,192.00	10,192
1972–73	2,650	3,469	152	4,689.00	4,689
1973–74	5,430	1,838	218	6,805.00	6,805
1974–75	..	4,211	24	2,159.00	2,159
1975–76	..	1,624	40	1,784.00	892
1976–77	700	1,186	..	2,586.00	1,293
1977–78	5,380	3,980	40	14,650.00	7,325
1978–79	6,310	690	..	13,410.00	6,705
1979–80	6,750	2,160	..	15,660.00	7,830
1980–81	9,480	1,500	28	20,572.00	10,286
1981–82	..	..	..	..	..

(1)	(2)	(3)	(4)	(5)	(6)
		IV. Kannivadi Range.			
1971-72	2,600	9,010	30	3,115.00	3,115
1972-73	4,290	2,470	120	5,765.00	5,765
1973-74	4,810	4,600	..	7,110.00	7,110
1974-75	930	..	..	930.00	930
1975-76	1,870	..	..	3,740.00	1,870
1976-77	1,560	1,560	360	4,560.00	2,280
1977-78	2,430	5,940	608	13,232.00	6,616
1978-79	2,270	6,000	..	10,540.09	5,270
1979-80	1,930	11,780	114	16,096.00	8,048
1980-81	13,260	2,230	60	17,960.00	8,980
1981-82	560	1,950	60	1,380.00	690

19-9---23A

APPENDIX No. XI.

Statement showing the l st of Buildings in Dindigul Divisi on.

Setial number.	Name of Building.	Year of Constru-ction.	Capital Cost.	Remarks.
(1)	(2)	(3)	(4)	(5)
	I. Bodi Range.			
1	Rest house at Devadanappatty	1906	3,206.00	..
2	Sub line at Devadanappatty	1904	629.00	..
	II. Kannivadi Range.			
1	Rest houre at Virupakshi	1901	8,005.00	..
2	Forest Guard Quarters at Kannivadi	1959–60	3,251.00	..
3	Forester's Quarters at Virupakshi	1963–64	6,427.00	..
4	Sub line at Virupakshi (2 rooms)	1908	1,910.00	..
5	Rest house at Pachalur	1898–99	1,466.00	..
6	Foresters Quarters at Kannivadi	1972–74	15,577.00	..
7	Coimbined Quarter for Forest guards (Arasamaruthup-patty Beat at Kannivadi).	1972–74	20,036.00	..
8	Reserve workers Quarters at Kannivadi	1971–73	10,197.00	..
9	Combined F.G.'s Quarters at (Kottavadi Beat) at Oddan-chatram.	1972–74	19,645.98	..
10	Combined F.G.'s Quarters at Oddanchatram	1972–74	20,822.83	..
11	Combined F.G. 's Quarters at Pachalur	1973–74	27,477.86	..
	III. Tandikudi Range.			
1	Rest house at Thandigudi	1892	2,337.00	..
2	Sub line at Thandigudi (4 rooms)	1919	1,681.00	..
	IV. Palani Range.			
1	Range Office at Palani	1918	8,025.29	..
2	Rest house at Ganguvar Odai	1915	1,653.00	..
3	Foresters Quarters at Palani	1974–76	21,417.26	..
4	Range Officer's Quarters at Palani	1974–76	29,676.00	..

(1)	(2)	(3)	(4)	(5)
	V. Ayyalur Range.			
1	Range Office at Ayyalur	1919	1,872.00	
2	Range Officer's Quarters at Ayyalur	1912	4,777.00	..
3	Sub line at Pillaiyarnatham	1910	1,379.00	..
4	Sub line at Ayyalur	1912	2,027.00	..
5	Sub line at Malai patty	1919	1,948.00	..
6	Sub line at Puthur	1920	3,395.00	..
7	Sub line at R. Combai	1908	1,559.00	..
8	Peon's Quarters at Ayyalur	1911	768.00	..
9	Sub line at Sendurai	1907	2,438.00	..
10	Rest house at R. Combai	1908	1,973.00	..
11	Rest house at Ayyalur	1902	6,161.00	..

APPENDIX

DETAILED REVENUE REALISED AND EXPENDITURE

tEarst while Madurai

Budget Head.	1970-71	1971-72	1972-73	1973-74	1974-75
(1)	(2)	(3)	(4)	(5)	(6)
(a) *Timber and other produce removed from the Forests by Government Agency* :					
Sandal Wood	182.93	89.26	94.21	92.94	536.61
Timber	644.50	5,243.75	2,317.80	9,023.00	13,723.00
Fire Wood and Charcoal	56.00	797.00	2,619.00	17,382.25	4,94,938.50
O. M. F. P...	455.00	271.51	6,154.20	7,106.75	..
(*b*) *Timber and Other Produce removed from the Forest by Conservency or Purchase.*					
Timber	399.85	375.00	135.00	7,917.00	..
Firewood	57,59,46.88	6,33,411.15	5,64,433.80	3,08,044.69	..
Bamboo	3,592.00	2,350.00	5,416.00	6,535.00	8,000.00
Grazing and Fodder grass ..	14,599.00	30,187.50	22,772.50	53,478.00	33,959.25
O.M.F.P.	4,15,860.71	5,23,210.36	3,11,697.63	1,50,390.17	2,57,934.85
c) Confisecated foiest produce	668.88	1,582.43	949.91	1,915.25	2,363.33
(*d*) Receipt from the Management of Ex-zamin.	31,814.32	29,839.52	26,055.25	29,515.65	..
Forest Plantations—					
Wattle	..	..	..	..	..
Form Forestry	..	..	..	..	..
Eucalyptus	..	..	..	..	..
Teak	..	..	..	..	..
(*e*) *Misc* .—					
Fires and Forfeiture	12,167.50	6,044.80	2,852.40	12,550.99	17,624.55
Rent on Buildings	3,323.63	4,259.85	8,439.01	8,670.85	9,959.55
Other sources	65,944.71	1,42,526.05	1,24,074.36	4,90,885.46	6,36,477.09
Other Receipts	276.00	76.00	1,999.60	..	..
Receipt from development Scheme	..	..	99,868.34	45,971.52	7,79,210.25
Total ..	11,25,869.91	13,80,264.42	11,79,879.00	15,60,425.00	22,63,526.98

No. XII.

Incurred under each head in Dindigul Division.

North Division.

1975-76 (7)	1976-77 (8)	1977-78 (9)	1978-79 (10)	1979-80 (11)	1980-81 (12)	1981-82 (13)
..	177.55	133.21	191.70	139.93	705.40	305.60
..	8,140.00	9,340.50	4,642.00	9,996.00	5,032.00	4,65,374.40
..	5,39,570.60	2,72,067.50	4,93,987.30	2,21,185.40	97,604.95	99,590.00
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	11,403.00	4,140.00	16,126.02	..	26,995.00	6,750.00
..	34,449.50	35,299.00	55,268.00	62,226.00	60,34.00	64,798.00
..	2,89,738.16	2,35,012.99	5,08,697.58	2,99,695.45	4,40,855.71	8,85,472.48
..	862.95	11,772.35	1,048.25	802.00	12,550.25	13,005.80
..	..	..	..	..	..	..
..	..	..	..	39,45,613.40	95,87,323.57	140,76,779.55
..	..	..	..	..	44,230.00	7,29,210.20
..	..	..	..	17,57,359.40	50,87,742.57	72,85,143.49
..	..	..	..	..	19,389.00	4,10,460.27
	26,105.05	41,140.60	39,837.50	60,773.00	61,527.35	37,446.15
..	10,798.81	10,080.89	11,487.89	9,775.55	10,542.75	9,193.90
	14,89,946.67	17,08,531.56	2,45,590.58	2,23,162.08	5,11,134.79	7,39,139.34
..	..	..	..	6,094.79	..	..
..	17,13,049.71	14,20,098.75	36,15,940.90	..	3,24,349.91	[illegible]1,01,530.2
	41,24,242.00	37,47,623.25	49,92,817.72	65,96,823.00	163,42,624.25	2,49,531,199.7

Detailed Head-wise Expenditure of Earst While

From 1970–71

Budget Head.	1970–71	1971–72	1972–73	1973–74	1974–75
(1)	(2)	(3)	(4)	(5)	(6)
313. A. Forest Division and Administrative I Non-plan A.D. District establishment.—					
01. *Salaries* :					
(i) Pay	3,09,321.92	6,02,030.83	5,99,445.58	5,26,652.50	6,77,433.85
(ii) Dearness Allowance ..	2,50,315.95	63,042.85	87,008.37	1,13,769.00	2,05,941.45
(iii) Medical Charges	..	..	345.50	533.05	1,429.31
(iv) Other Allowances ..	52,130.31	41,627.89	57,082.90	68,837.65	76,640.10
(v) Add. D.A.	..	..	..	..	5,481.45
03. *Travel Expences*	42,089.05	65,895.65	67,724.40	67,893.41	84,475.10
04. *Office Expences* :					
(i) Other Contingencies	20,703.76	20,425.65	20,918.58	20,309.01	22,032.07
(ii) Trunk call charges	..	..	..	..	..
313. *A. Q. Wattle Plantation* :					
01. *Salaries* :					
(i) Pay	4,165.95	7,295.45	10,000.30	10,946.55	9,635.85
(ii) Dearness Allowances ..	2,485.00	1,649.50	82.20	1,570.00	1,713.85
(iii) Other Allowances	472.00	..	..	4,594.78	776.15
(iv) Travel Expences	..	491.05	556.90	861.35	..
Motor Vehicles :					
Maintenance, Cost of fuel ..	..	..	..	..	16,829.51
313. *J. A. Scheme Timber Operation and Forest Utilisation* :					
(i) Pay	..	2,115.00	1,475.00	..	..
(ii) Dearness Allowance	..	180.00	148.10	..	..
(iii) Other Allowances	..	494.55	320.50	..	..
(iv) Travel Expences	..	594.45	480.00	..	..
313. *Other Expenditure Consalidation* :					
(i) Pay	..	..	..	..	..
(ii) Dearness Allowances ..	..	..	..	..	..
(iii) Other Allowances	..	..	..	..	..
(iv) Travel Expences	..	..	..	..	..
313. *J. K. Pulpwood Plantation of Salaries* :					
(i) Pay	..	..	..	..	..
(ii) Dearness Allowances ..	..	..	..	..	..
(iii) Other Allowances	..	..	..	..	..
(iv) Travel Expenses	..	..	..	..	..

Madurai NorthDivision for the Period.

to 1981–82.

1975–76 (7)	1976–77 (8)	1977–78 (9)	1978–79 (10)	1979–80 (11)	1980–81 (12)	1981–82 (13)
..	6,88,787.45	6,84,784.99	11,75,916.000	13,16,84,208	13,05,182.66	12,38,529.76
..	2,00,921.60	1,95,082.03	15,733.10	47,525.70	1,74,080.28	3,02,694.17
..	1,010.05	1,074.07	981.75	1,142.80	180.25	..
..	78,648.25	1,05,586.27	1,65,120.55	1,50,929.90	1,60,749.70	1,58,463.24
..	2,318.00	..	4,420.00	..	..	..
..	1,03,249.20	88,300.10	99,033.35	1,16,683.92	1,19,362.30	1,60,187.46
..	26,517.70	42,792.04	45,449.78	47,477.53	72,828.72	72,417.84
..	..	..	..	..	..	15,742.45
..	12,260.00	10,560.00	10,312.45	13,450.00	2,014.15	7,892.90
..	2,382.50	1,948.00	980.00	491.00	151.50	1,374.90
..	1,433.25	1,208.00	..	..	136.65	..
..	1,938.55	982.35	470.15	1,357.55	..	..
..	15,477.13	16,934.49	19,849.54	48,334.98	35,759.57	32,207.95
..	..	..	..	..	..	10,240.15
..	..	..	..	..	..	2,972.200
..	..	..	..	..	..	2471.65
..	..	..	..	..	..	6.75
..	4,925.00	..	..	..	..	..
..	1,720.00	..	..	..	..	
..	171.00	..	..	..	..	..
..	1,174.50	..	..	..	..	..
..	..	..	..	..	..	70,748.40
..	..	..	..	..	..	17,616.55
..		..	..	..	..	14,831.65
..		..	..	..	..	1,682.90

Budget Head. (1)	1970–71 (2)	1971–72 (3)	1972–73 (4)	1973–74 (5)	1974–75 (6)
313. *Forest A. J. Communication and Buildings J. B. Construction of Buildings of Salaries* —					
(i) Pay	..	..	..	..	..
(ii) Dearness Allowance ..	..	..	..	..	..
(iii) Other Allowances	..	.	..	..	..
313. *A. AN. J. B. Minor Forest Produce* 01. *Salaries*—					
(i) Pay	..	..	..	..	..
(ii) Dearness Allowances ..	..	..	..	..	..
(iii) Other Allowances	..	..	..	..	..
(iv) Travel Expenses	..	..	..	..	..
313. *Forest and Conservation and Development*—					
AB. Removal and Replacement of	8,350.71	4,230.76	4,601.88	1,772.98	976.55
A.L. Conservancy and Regeneration–					
01. Regeneration	6,949.95	28,263.94	17,555.25	16,912.11	12,483.93
02. Maintenance of boundaries	762.85	1,110.00	1,543.10	2,012.00	1,394.00
03 Fire Production	46,103.61	54,854.89	1,827.30		..
04 Survey and Demarcation ..	..	..	..	..	..
AD. Other Items—					
01 Rents, Rates and Taxes ..	298.87	224.98	506.85	1,728.51	1,080.85
02	115.00	..	..	210.00	93.00
03 Minor Works	..	..	..	..	270.00
05 Payment of Professional and Special Services, Law Charges.			..	..	..
26 Other Charges	2662.09	2,334.53	1,962.34	1,779.94	..
313. AA. Removal of Timber by Government Agency.	4,275.25	552.00	855.45	1,724.94	400.00
313. A.D. Removal of grass and O.M.F.P. by Government Agency.	1,938.28	911.50	2,966.50	7,755.63	4,219.70
313. A. C. Removal of Sandal wood by Government Agency.	..	..	86.55	..	..
313. A. J. Communication and buildings -17 Maintenance.	25,291.77	7,398.91	26,486.14	8,014.00	4,599.91
26 Othrer charges—					
Building	36,357.62	15,242.81	35,167,32	17,432,48	16,580.58

1975-76 (7)	1976-77 (8)	1977-78 (9)	1978-79 (10)	1979-80 (11)	1980-81 (12)	1981-82 (13)
..	..	..	..	..	..	4,374.80
..	..	..	..	..	..	1,037.20
..		..	..	..	..	516.40
..	..	..	..	..	..	660.00
..	..	..	..	..	..	236.00
..	..	..	..	..	..	318.00
	..	..	..	..	..	120.00
..	18,90.93	3,614.40	1,307.33	1,090.36	6,252.48	3,234.29
..	..	5,339.00	1,415.00	4,132.50	13,247.80	11,613.00
..	..	..	1,600.00	..	990.00	1,980.00
..	..	..	..	..	..	..
..	..	1,652.00	1,252.40	..	1,07125	8,486.20
..	2.104.62	..	1,459.19	4,019.84	2,557.50	17,404.06
..	..	..	4,320.06	..	..	1,852.30
..	..	..	399.50	591.92	306.25	..
..	..	..	..	..	1,024.50	..
..	..	..	705.60	4,434.88	7,849.82	3,056.87
	..	120.00	..	836.00	15,179.79	80,152.35
..	..	9,779.79	..	4.00	35,034.00	1,48,783.51
..	..	..	..	75.00	..	..
..	122.65	14,925.34	10,184.80	5,402.00	14,126.015	13,221.30
..	29,429.34	40,051.07	16,948.93	12,0672.34	85,313.31	58,144.60

Budget Head.	1970–71	1971–72	1972–73	1973–74	1974–75
(1)	(2)	(3)	(4)	(5)	(6)
513. *Capital outlay on Forest Plan Scheme :*					
J. A. Village Forests	21,829.18	39,786.45	66,374.92	59,357.72	..
J. E. Wattle Plantation	2,06,080.02	2,16,139.41	2,26,935.83	1,84,379.78	..
J. M. Pulpwood Plantation ..	356,61.31	62,385.43	49,022.68	1,23,768.46	..
J. I. Raising Fuel Plantation ..	..	..	..	10,500.50	..
J. C. Minor Forest Produce ..	3,085.15	15,115.66	1,02,301.84	73,821.79	..
J. J. Sandalwood Plantation ..	1,134.87	1,978.58	1,300.45	1,040.84	..
J. B. Construction of Buildings	..	7,843.80	21,332.37	19,847,995	..
513. J. A. Forest Protection ..	..	..	89,913.22	2,91 ,832.39	..
J. B. Labour and Staff amunities	1,090.00	8,922.00	12,832.68	17,722.62	..
Total ..	4,70,148.47	12,73,139.77	15,06,162.00	16,59,589.00	17,81,383.94

1975-76 (7)	1976-77 (8)	1977-78 (9)	1978-79 (10)	1979-80 (11)	1980-81 (12)	1981-82 (13)
..	2,08,510.60	1,85,517.71	1,74,072.37	1,83,987.73	3,77,855.11	1,49,784.97
..	2,26,300.48	1,75,461.78	86,278.12	1,25,072.45	3,58,444.32	1,30,952.32
..	1,70.418.09	1,92,811.71	..	90,217.90	1,48,118.67	2,45,875.75
..	33,446.21	83,176.00	1,53,221.34	1,80,097.20	1,63,979.67	1,44,799.07
..	36,498.50	31,339.54	16,609.98	20,474.21	46,117.29	40,015.50
..	1,854.35	1,936.80	614.75	105.33	4,475.78	13,402.05
..	..	495.00	..	..		..
	..	6,03,153.06	5,27,135.20	9,24,646.37	7,08,736.30	5,82,737.13
..	..	19,067.83	2,083.50	1,20,490.31	1,22,801.03	1,71,885.93
18,66,689.00	23,18,812.00	25,10,694.07	25,37,924.84	35,305,18.00	38,87,922.80	39,39,723.55

Appendix No. XIII.

Statement showing the details of each R.F. and R.L. Blocks into various working circle in Dindugul division.

Name of the Reserve Forest and Reserve Land.	Total Extent hectares.	Area under each working circle. Teak.	Rehabilitation.	Fuel.	Protection.
(1)	(2)	(3)	(4)	(5)	(6)
I. Ayyalur Range :					
1 Mudimalai R.F.	1,794.92	..	1,794.92	..	..
2 Ayyalur R.F. (Pillaiyarnatham R.F.)	1,756.07	..	215.10	1,540.97	..
3 Panjanthangi R.F.	2891.77	..	2,891.77	..	..
4 Thannirkaradu R.F. ..	389.63	..	389.63	..	..
5 Sundamalai R.F	165.76	..	165.76	..	
6 Pannamalai R.F.	468.78	..	468.78	..	..
7 Thoppasamimalai R.F. ..	3,453.06	..	3,453.06	..	..
8 Moongilkaradu R.F. ..	710.79	..	710.79	..	..
9 Rangamalai R.F.	411.78	..	411.78	..	..
10 Karumalai R.F.	826.20	..	826.20	..	..
11 Vandamalai R.F. and Rangamalai R.F.	691.22	..	691.22	..	..
12 Maluvadimalai R.F. ..	256.37	..	256.37	..	
13 Idayakottai R.F.	1,195.84	..	1,195.84	..	..
Total ..	15,012.19	..	13,471.22	1,540.97	..
II. Periyakulam :					
I.P.H.S.S. R.F. Varattarkanal and Iruttarkanal Blocks (part).	1,210.68	52.39	1,158.29	..	..
2 Amburuvi R.F.	3,543.86	..	80.00	..	3,463.86
3 Shengalvarayar R.F. ..	1,821.30	..	..	..	1,821.30
4 Karungalthcnimedu ..	1,134.47	..	1,134.47	..	..
5 Adukkam R.F. ..	2,277.99	..	2,277.99		..
6 Pambar R.F. (Part) ..	1,639.81	..	..	..	1,639.81
7 Agamalai and Thambirankanal R.F.	1,582.38	..	1,434.78	..	147.60
8 Murugamalai R.F.	2,794.25	..	2,794.25	..	..
9 Bodi North R.L. (part) ..	5,166.00	..	5,166.00	..	..
Total ..	21,170.74	52.39	14,045.78	..	7,072.57
III. Bodi Range :					
1 Thevaram R.L.	1,715.60	..	1,715.60	..	..
2 Kottagudi R.L.	4,267.00	..	4,267.00	..	..
3 Bodi West R.L.	4,199.37	..	4,199.37	..	..
4 Bodi North R.L. (part) ..	13,278.33	..	13,278.33	..	..
5 Valkaradu R.F.	238.85	..	238.85	..	..
6 Perumalkoil karadu R.F. ..	179.63	..	179.63	..	..
Total ..	23,878.78	..	23,878.78	..	..

Name of the Reserve Forest and Reserve Land.	Total Extent hectares.	Area under each working circle.			
		Teak.	Rehabilitation.	Fuel.	Protection.
(1)	(2)	(3)	(4)	(5)	(6)
IV. Kannivadi Range :					
1 Vennilai R.F.	2,325.40	..	..	..	2,325.40
2 Kanienkadu R.F.	1,009.72	..	..	..	1,009.72
3 Palani Hills Northern slopes (part).	821.05	..	821.05	..	..
4 Thevarmalai R.F.	385.65	..	385.65	..	..
5 Kannivadi Block I.R.L. ..	462.84	..	462.84	..	..
6 Kannivadi Block II R.L. ..	7,278.41	..	7,278.41	..	..
7 Palani Hills Northern slopes	3,863.19	..	3,863.19	..	..
8 Senkattampatti	729.99	..	729.99	..	..
9 Chatrapatti R.F.	496.42	..	496.42	..	..
10 Siruvatkadu	1,242.42	151.19	..	..	1,091.23
Total ..	18,615.09	151.19	14,037.55	..	4,426·35
V. Palani Range :					
1 P. V. Valley R.F.	7,165.45	180.00	60.00	..	6,925·45
2 Oliyanathu Odai	1,761.25	..	40.00	..	1,721.25
3 Kudiraiyar (portion) ..	4,344.53	..	..	..	4,344.53
4 Vilancombai	67.54	15.82	..	..	51.72
5 Karadikuttu	559.23	..	559.23	..	..
6 Periampatti	410.20	..	410.20	..	..
7 Andipatti	5,155.42	..	5,155.42	..	..
8 Ayakudi R.L. (part) ..	2,203.59	..	2,203.59	..	..
Total ..	21,667.21	195.82	8,428.44	..	13,042.95
VI. Thandikudi Range :					
1 Maruthanadiar	1,983.39	..	1,983.39	..	..
2 Kaduguthadi	149.33	..	..	..	149.33
3 Kallar Ariyanathukanal Komankavi kanal.	1,275.20	..	..	..	1,275.20
4 Koviladi	138.81	..	..	..	138.81
5 Pambukallar	267.10	..	..	..	267.10
6 Kokkuparai	600.75	..	..	..	600.55
7 Umaiyar	197.00	..	..	..	197.00
8 Kokuvanur	43.93	..	..	..	43.93
9 P.H.S.S. R.F. (Part)	1,326.26	..	1,326.26	..	..
10 Mankaradu	844.36	..	844.36	..	..
11 Kaduvamalai	578.72	..	..	..	578.72
Total ..	7,404.65	..	4,154.01	..	3,250.64

ABSTRACT.

Name of the Range.	Total extent of the division.	Area under each working circle.			
		Teak.	Rehabilitation.	Fuel.	Protection.
(1)	(2)	(3)	(4)	(5)	(6)
1 Ayyalur	15.012.19	..	13,471.22	1,540.97	..
2 Periyakulam	21,170.74	52.89	14,045.78	..	7,072.57
3 Bodi	23,878.78	..	23,878.78	..	
4 Kannivadi	18,615.09	151.19	14,037.55	..	4,426.35
5 Palani	21,667.21	195.82	8,428.44	..	13.042.95
6 Thandikudi	7,404.65	..	4,154.01	..	3,250.64
Total ..	1,07748.66	399.40	78,015.78	1,540.97	27,792.51

APPENDIX No. XIV.

List of Miscellaneous Plantations in Dindigul Division.

Serial number.	Year of plantation.	Location or name of the plantation.	Area in ha.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		I. Kannivadi Range.		
1	1954	Virupakshi South F.C. IX	12.00	70
2	1954	Chatrappatty R.F. Miscellaneous R.A.	12.00	60
3	1963	Miscellaneous R.A. in Periya Kombai R.L.	30.34	30
4	1964	Do.	30.34	31
5	1965	Miscellaneous R.A. in Virupakshi South F.C. XVI	8.00	3
6	1976	Miscellaneous R.A. in Komalipatty	8.30	64
7	1977	Odai R.A. in Pannapatty	10.00	63
8	1977	Do.	25.00	50
9	1978	Odai R.A. in Dharmathupatty combai Bit I	24.20	60
10	1978	Odai R.A. in Dharmathupatty combai Bit II	11.60	65
11	1979	Odai R.A. in Virupakshi	17.80	45
12	1979	Odai in R.A. in Oddanchatram	22.00	50
13	1979	Odai R.A. in Dhevarmalai	27.00	55
14	1979	Odai R.A. in Sengattampatty	17.60	45
15	1979	Do.	16.00	45
16	1979	Do.	16.70	43
17	1979	Odai in R.A. Dharmathupatty	14.00	38
18	1979	Do.	12.70	40
19	1979	Do.	21.00	43
20	1980	Odai R.A. in Dhevarmalai	40.00	65
21	1980	Odai R.A. in Sengattampatty	40.00	55
22	1981	Odai R.A. in Virupakshi	28.00	75
23	1981	Odai R.A. in Dhevarmalai, Bit I	27.00	75
24	1981	Odai R.A in Dhevarmalai, Bit II	27.00	75
25	1981	Odai R.A. in Sengathanpatty	21.20	70
		Total	519.78	

Serial number.	Year of plantation.	Location or name of the plantation.	Area in ha.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		II Ayyalur Range.		
1	1963	Moongilkaradu R.F.	8.00	20
2	1964	Do. ..	10.00	21
3	1964	Pillaiyarnatham R.F.	20.00	27
4	1964	Mudi malai R.F.	18.00	12
5	1965	Do. ..	20.00	8
6	1965	Do. ..	4.00	With Sandal 6
7	1965	Pillaiyarnatham R.F.	10.00	2
8	1966	Pannamalai R.F.	10.00	7
9	1966	Mudimalai R.F.	15.00	50
10	1967	Moongilkaradu R.F.	7.00	30
11	1967	Mudimalai R.F.	12.00	41
12	1968	Do.	16.00	3
13	1968	Thoppasamymalai R.F.	7.00	35
14	1968	Moongilkaradu R.F.	7.00	70
15	1969	Mudimalai R.F.	5.40	43
16	1970	Thoppasamymalai R.F.	10.00	79
17	1970	Moongilkaradu R.F.	2.00	81
18	1970	Mudimalai	3.00	41
19	1971	Do.	3.00	45
20	1971	Thoppasamymalai R.F.	3.00	85
21	1971	Moongilkaradu R.F.	3.00	80
22	1972	Thoppasamymalai R.F.	3.08	65
23	1972	Mudimalai	3.00	21
24	1973	Thoppasamymalai R.F.	4.00	70
25	1973	Moongilkaradu R.F.	4.00	60
26	1974	Mudimalai R.F.	12.00	55
27	1974	Kandamalai R.F.	2.00	2
28	1974	Idayakottai	2.00	17
29	1974	Moongilkaradu R.F.	12.04	60
30	1969	Do.	4.30	70
31	1974	Thoppasamymalai R.F.	5.46	65
32	1974	A. Combai	16.20	40
33	1975	Moongilkaradu R.F.	4.00	75
34	1975	A. Combai	4.00	20
35	1975	R. Combai	4.00	75
36	1975	Sorimalai	1.90	18
37	1976	Do. ..	7.20	67
38	1976	Moongilkaradu R.F.	5.00	85
39	1976	Panjanthangi	8.40	50

Serial number.	Year of planta-tion.	Location or name of the plantation.	Area in ha.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		II. Ayyalur Range—cont.		
40	1976	Kaluvadi	5.00	68
41	1977	Rangamalai R.F.	6.50	Velvelan.
42	1977	A. Combai	10.20	80
43	1977	Kaluvadi	10.00	90
44	1977	Moongilkaradu	8.10	95
45	1977	Pillaiyarnatham	7.01	92
46	1977	Sorimalai R.F.	12.25	76
47	1977	Ponnamalai R.F.	10.00	72
48	1977	Idayakottai	5.00	72
49	1978	Ponnamalai	5.00	90
50	1978	Idayakottai Bit I	11.00	85
51	1978	Idayakottai Bit II	6.60	84
52	1978	Idayakottai Bit III	4.50	85
53	1978	Idayakottai Bit IV	8.30	85
54	1978	Rangamalai	10.00	85
55	1978	Sendurai (Bungalamoodmalai)	5.10	95
56	1978	Moongilkaradu	5.60	90
57	1979	Do. ..	8.00	60
58	1979	Rangamalai	7.90	75
59	1981	Pillaiyarnatham	4.50	85
60	1981	Pannamali	10.00	..
		Total ..	456.54	
		III. Palani Range.		
1	1965	Kuthiraiyar R.F.	25.00	15
2	1975	Ayakudi Ex-Zamin	10.50	With silk cotton 80
3	1977	Varthapallam	26.50	80
4	1979	P. V. Valley	12.30	80
5	1979	Karadikuttu	5.50	20
	1979	Andipatty, Bit I	12.10	80
	1979	Andi[illegible] Bit II	16.60	80
		Total ..	108.50	

Serial number.	Year of planta- tion.	Location or name of the plantation.	Area in ha.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		X. Bodinaickanur Range.		
1	1958	Valkaradu	20.20	40
2	1959	Pudukkulam	30.35	45
3	1960	Pottipuram	2.02	30
4	1961	Perumalkoilkaradu	31.97	40
5	1964	Thevaram	48.56	35
6	1965	Arungulam	22.25	45
7	1965	Thevaram	28.73	40
8	1965	Kottakudi Ex-Zamin	12.94	20
9	1966	Thevaram	40.40	45
10	1966	Rasingapuram	44.11	40
11	1967	Thevaram	50.50	40
12	1968	Do.	40.40	45
13	1969	Do. ..	27.40	40
14	1969	Do. ..	2.40	35
15	1969	Do. ..	3.30	20
16	1969	Kallikombai Modakku	10.11	10
17	1971	Uthambarai	1.00	20
18	1971	Kottakudi R.L.	6.00	20
19	1973	Mundal (Kottakudi R.L.)	8.85	20
20	1974	Do. ..	4.00	40
21	1976	Do. ..	8.70	65
22	1979	Pudukattupallam (Bodi North Hills)	3.40	65
23	1979	Mundal (Kottakudi R.L.)	5.80	90
24	1979	Bodhakaradu	1.70	90
25	1979	Thevaram	4.90	90
26	1980	Valkaradu	4.85	80
27	1980	Thevaram	5.54	90
28	1980	Pichangarai	9.91	85
		Total ..	523.19	

Serial number.	Year of planta-tion.	Location or name of the plantation.	Area in hd.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		V. Periyakulam Range.		
1	1959	Iruttar	50.25	35
2	1959	Adukkam	4.04	65
3	1960	Do.	2.02	35
4	1960	Murugamalai	0.80	40
5	1961	Agamalai	10.11	55
6	1962	Kallar Saragam	24.24	40
7	1962	Adukkam	4.04	35
8	1962	Pambar	4.04	25
9	1962	Murugamalai	3.24	30
10	1963	Do.	2.02	30
11	1965	Allinagaram	19.42	40
12	1965	Iruttar	28.32	20
13	1966	Murugamalai	8.49	20
14	1966	Kombakkarai	28.73	20
15	1966	Pambar	28.12	35
16	1967	Sothuparai	7.68	35
17	1967	Ghat Road	4.04	30
18	1967	Adukkam	4.04	35
19	1967	Kallar	15.78	45
20	1967	Chelumbu	17.80	40
21	1969	Agamalai	6.06	35
22	1976	Adukkam	18.00	45
23	1977	Do.	34.40	45
24	1977	Murugamalai	4.30	35
25	1978	Chelumbu	17.22	60
26	1978	Peraiyar	8.10	90
27	1979	Kadathurai	4.30	75
28	1979	Murugamalai	8.70	45
29	1979	Kombakkarai	5.25	80
30	1979	Kadathurai (Varattar) Bit I	6.10	
31	1979	Kadathurai (Varattar) Bit II	1.90	80
32	1980	Pambar (East Beat)	7.57	85
33	1980	Varattar	8.62	55
		Total ..	403.73	

NOTE.—The percentage of survival is the copy of the condition of plantations as on 31st August 1982.

APPENDIX No. XIV-A.

List of plantations raised by Vaigai Soil Conservation Division in Dindigul Division upto 1980.

Serial number.	*Year of planta-tion.*	*Location or name of the plantation.*	*Area in ha.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)
1	1966	Ammapatty Tank Bed	32.38	..
2	1966	Pottipuram Tank Bed	16.19	..
3	1966	Jambalmedu R.A.	16.19	..
4	1966	Pulikutty R.A.	40.47	..
5	1966	Thimmanaickenpatty and Mariampatty R.F.	80.44	..
6	1967	Mallingaswamykaradu and Nallamalaikaradu	94.70	..
7	1967	Jambalmedu R.A.	30.35	..
8	1967	Pulikutty R.A.	80.94	..
9	1968	Pirandaikaradu and Senkaradu	87.01	..
10	1968	Vellaikaradu	40.47	..
11	1968	Nallammalaikaradu	44.52	..
12	1968	Upparpattykaradu	44.52	..
13	1968	Karayanpatty	15.38	..
14	1968	Pulikutty R.A.	84.18	..
15	1968	Solamalai	37.23	..
16	1969	Melakkamapatty	40.47	..
17	1969	Ammapuram	61.11	..
18	1969	Koolayanur Bit I	30.76	..
19	1969	Koolayanur Bit II	27.92	..
20	1969	Dombucherry	23.47	..
21	1969	Pulikutty Bit I	10.12	..
22	1969	Pulikkutty Bit II	2.43	..
23	1969	Solamalai Bit I	13.36	..
24	1970	Paramasivamkaradu	60.70	..
25	1971	Aranmanaipudur	28.38	..
26	1971	Ammapuram	9.31	..
27	1971	Sonakaradu	64.75	..
28	1971	Kottur	49.78	..
29	1971	Uppukkottai	21.85	..
30	1972	Periyakaradu	40.47	..
31	1972	Thadichevi	60.70	..
32	1972	Pinnathavampatty	60.70	..
33	1972	Ernampatty	36.83	..
34	1972	Upparpatty	5.67	..
35	1972	Salamalai	28.33	..
36	1974	Bodi West Hills R.L.	61.00	..
37	1975	Thevaram	40.00	..
38	1978	Do.	18.00	..
39	1979	Mankaradu	72.50	..
40	1980	Do.	45.00	..
41	1980	Valkaradu Bit I	55.00	..
42	1980	Valkaradu Bit II	60.00	..
43	1980	Murugamalai	40.10	..
		Total	1,814.08	

Appendix No. XV.

List of Silk Cotton Plantations raised in Dindigul Division.

Serial number.	*Year of plantation.*	*Location or name of the plantation.*	*Area in hectares.*	*Survival in percentage.*
(1)	(2)	(3)	(4)	(5)
		I. Kannivadi Range.		
1	1966	Karuveppilai Odai	5.90	75
2	1967	Periya Combai (R.L.)	4.88	75
3	1968	Do.	4.85	64
4	1969	Do.	5.90	78
5	1969	Karuveppilai Odai	21.90	82
6	1970	Do.	25.60	83
7	1970	Do.	21.90	80
8	1970	Periya Combai	2.00	80
9	1971	Do. ..	4.97	78
10	1971	Karuveppilai Odai	21.45	85
11	1972	Do.	26.16	65
12	1972	Periya Combai	5.55	69
13	1973	Do. ..	5.00	44
14	1973	Karuveppilai Odai	22.42	45
15	1974	Do.	25.33	40
16	1975	Do. ..	20.10	38
17	1978	Do.	9.70	66
		Total ..	235.61	
		II. Palani Range:		
1	1967	Vilancombai	4.04	
		Total ..	4.04	
		III. Bodi Range.		
1	1962	Pudukkulam	5.66	20
2	1963	Do. ..	4.04	20
3	1965	Kottakudi R.L.	4.04	20
4	1969	Do. ..	10.60	20
5	1969	Uthambarai	6.07	25
6	1973	Kottakudi	8.75	27
		Total	39.16	

IV. Periyakulam Range.

1	1964	Pambar	4.04	80
2	1966	Amburuvi (Karungal thonimedu)	13.35	10
3	1966	Iruttar	8.75	25
4	1966	Iruttar	4.75	60
5	1966	Amburuvi	24.28	20
6	1966	Do.	17.04	20
7	1965	Marungalthoni medu	13.35	10
8	1967	Sothupparai	7.60	70
9	1967	Karungalthoni medu	8.09	80
10	1967	Pambar	11.10	30
11	1968	Kombakkarai	19.82	10
12	1970	Iruttar	2.00	20
13	1972	Pambar	25.93	20
14	1973	Do.	20.40	35
15	1974	Adukkam Beat Bit I	4.75	20
16	1974	Adukkam Beat Bit II	5.05	15
17	1974	Adukkam Beat Bit III	5.77	15
18	1974	Iruttar	3.65	70
19	1977	Agamalai	11.70	70
		TOTAL ..	211.42	

Note —The percentage of survival is the copy of the condition on plantations as on 31st August 1982.

Appendix No. XVI.

List of minor forest produce item including less important in Dindigul Division.

Serial number.	Vernacular name of produce.	Description of produce.	Botanical name.
(1)	(2)	(3)	(4)
1	Mankoy	Fruit	Mangiferra Indica.
2	Sundakoy	Do.	Solanum tubaraum.
3	Nellikoy	Do.	Emblicaofficinelis.
4	Kilakoy	Do.	Garise carendas.
5	Mullikoy	Do.	Solanum berbasritolium.
6	Pilakoy	Do.	Artocarpus heferophyllus.
7	Velselai	Leaves	Huseparadisica.
8	Sayasedi	Leave and roots	Hedyotia umbellata.
9	Magali	Root	Gymnema hirsutam.
10	Vembedampattai	Bark	Ventilago maderaspatana.
11	Vilampalam	Fruit	Feronia elephantum.
12	Valampuri	Bark	Hellcteres isora.
13	Kattamanakku	Seed	Jatropha cureas.
14	Karuvelan (gondu)	Gum	Acacia arabica.
15	Pulukkapattai	Bark	Do.
16	Nannari Ver	Roots	Hemidesmus indicus,
17	Kodiveli	Do.	Plumbago zoylanica.
18	Malaithangi	Do.	Sidaiacnta.
19	Sivanar Vembu	Leaves	Asparagul indicus.
20	Pulankilangu	Roots	....
21	Sinthukodi	Greepers	Tinospora cordifolia.
22	Kattu Vethilaikodi	Do.	Do.
23	Pepudaikodi	Do.	Trichosanthes cucumerina.
24	Sammangipattai	Bark	Pergulariaodaratissima.
25	Kungiliam	Do.	Canarium strictum.
26	Kalmatham	Do.	Do.
27	Kalpasam	Stonemass	Do.
28	Thethankottai	Seed	Strychnos potatorum.
29	Porassankottai	Do.	Chloroxylon swietonia.
30	Pungankottai	Do.	Pongamia pinnata.
31	Inji	Roots	Zingiber officinale.
32	Mangal	Do.	Curcuma longs.
33	Echampalam	Fruit	Phoenix sylvestris.
34	Do.	Leaves	Do.
35	Navalapalam	Fruits	Syzygivam qumini.
36	Elandaipalam	Fruits	Zizyphus nummularia.
37	Machakoy	Seeds	Do.
38	Thanikoy	Do.	Termnalia belarica.
39	Siyakoy	Do.	Acacia concinna.

	[1]	[2]	[3]	[4]
40	Velvelankoy	Seeds		Nracle leucopaloca.
41	Karuvelankoy	Do.		Acacia arabica.
42	Marul	Do.		Sansevieria rozburghiana.
43	Yelam	Cardamm		Elttaria cardamomum.
44	Coffee	Seeds		Coffee arabica.
45	Kattujurakam	Do.		....
46	Neikottan	Do.		Lepisanthes teeraphylla.
47	Boondi	Cardamom		Sapindus emarginatus.
48	Illuppavithai	Do.		Madhaca longifolla.
49	Tagarevithai	Do.		Cassistoria.
50	Valuluvai	Do.		Celastrus panieulate.
51	Sheakottai	Do.		Do.
52	Senkottai	Do.		Semecarpus anacardium.
53	Kanepottu	Do.		Do.
54	Koilpottur Karuppadi	Do.		Mallotus penses philin.
55	Indampatti	Bark		Salmelia malabarica.
56	Korai	Korai grass		Setaria pallidifusca.
57	Karunkodi	Creepers		Hiptage madablota.
58	Thelukedi	Do.		Do.
59	Nanal	Grass		Secaramispontaneum.
60	Sambal grass	Do.		Typhelephantina.
61	Pilakoottai	Seed		Artocarpus integrifolia.
62	Koyya	Fruit		Psidium guajava.
63	Kolumichai	Do.		Do.
64	Yettikottai	Seed		Strychnos nuxvomica.
65	Madukara	Do.		Canthiu mparviflorum.
66	Seethapalam	Fruit		Anona squamosa.
67	Elimichai	Do.		Citrus medica.
68	Orange	Do.		Citrus surantiom.
69	Palmyrah	Leaves and fruits		Borassus flabellifer.
70	Coconut and coconut		Do.	Occos nucifera.
71	Thazhambu	Flower		Pandanus tectorius.

APPENDIX NO. XVII.

List of tamarind plantations raised in Dindigul Division.

Serial number.	Year of plantation.	Location or name of the plantation.	Area in hectares.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
I. Kannivadi Range :				
1	1962	Tamarind in Chatrapatti R.F.	2.50	49
2	1973	Tamarind in Komalipatty	2.50	..
3	1973	Tamarind in Oddanchatram	2.50	..
4	1975	Tamarind in Komalipatty	3.81	27
5	1976	Tamarind in Komalipatty	10.00	69
6	1978	Tamarind in Karuveppillai Odai	1.00	59
		Total ..	22.31	
II. Ayyalur Range :				
1	1965	Panamalai R.F.	4.00	36
2	1966	Do.	4.00	7
3	1973	Do.	7.89	16
4	1974	Do.	9.20	6
5	1975	Panjan thangi	4.40	75
6	1975	Pannamalai R.F.	9.15	2
7	1976	Do.	4.80	75
8	1976	R. Combai	5.00	90
9	1976	Pillayar natham	5.30	25
10	1977	Thoppasamy malai	5.00	90
11	1978	R. Combai	5.00	90
12	1979	Moongil Karadu	5.10	(No trees)
13	1981	Sundamalai R.F.	1.40	(failure)
14	1981	Ponnamalai	10.00	with Odai 85
15	1981	Mudimalai	12.00	25
		TOTAL ..	92.24	
III. Palani Range :				
1	1979	P. V. Valley	5.25	20
2	1981	Do.	10.00	..
		TOTAL ..	15.25	

(1)	(2)	(3)	(4)	(5)
IV. Periyakulam Range :				
1	1960	Pambar R.F.	5.26	50
2	1960	Pambar R.F.	4.04	40
3	1961	Kumbakkarai	4.04	60
4	1962	Pambar	4.04	60
5	1962	Kumbakkarai	5.26	60
6	1963	Kumbakkarai	4.04	60
7	1964	Pambar	4.04	25
8	1966	Karunikalthoni Medu	8.48	90
9	1967	Pambar	4.04	10
10	1967	Do. ..	4.83	50
11	1967	Murugamalai	2.42	15
12	1971	Pambar	6.15	30
13	1971	Adukkam	7.24	25
14	1971	Perambu katti Saragam	10.28	55
15	1974	Amburuvi	5.46	75
16	1976	Kallar	4.90	35
17	1977	Eachamalai	9.00	5
18	1977	Poosani malai pallam	9.00	45
19	1978	Eachamalai Bit I	8.50	50
20	1978	Sothuparai Saragam	11.45	With Silk Cotton 70
21	1980	Varattar	21.45	30
		Total ..	143.94	

Appendix No. XVIII.

List of Eucalyptus Hybrid Plantations Raised in Dindigul Division.

Serial number. (1)	*Year of Planation.* (2)	*Location or name of the plantation.* (3)	*Area in hectares.* (4)	*Area in Survival in percentage.* (5)
			HA.	PER CENT
		I. Ayyalur Range.		
1	1963	Pillaiyarnatham	8.00	30
2	1964	Do.	20.00	40 (with miscellaneous.
3	1965	Pillaiyarnatham	10.00	15
4	1966	Moongil Naradu	4.00	40
5	1964	Mudimalai	18.00	20
6	1965	Do.	20.00	15
7	1966	Do.	20.00	15
8	1967	Do.	11.75	10
		Total	111.75	
		II. Palani Range.		
1	1959	Rettaiyambadi	4.00	25
2	1960	Do.	4.00	20
3	1961	Do.	4.00	18
4	1962	Do.	4.00	35
5	1963	Do.	5.87	18
6	1964	Do.	8.00	35
		Total	29.87	
		III. Kannivadi Range.		
1	1963	Komalippatti	8.00	20
2	1964	Karuveppilaiodai	18.00	65
3	1963	Virupakshi South F.C. XIV	8.00	20
4	1964	F. C. XV.	18.00	60
5	1965	Do. F.C. XVI	8.00	20
		Total	60.00	
		IV. Periyakulam Range.		
1	1964	Pambar Bit I	20.23	30 (with mis cellaneous)
2	1964	Do. Bit II	3.23	25
3	1964	Do. Bit III	6.07	30
4	1967	Do.	4.80	25
		Total	34.33	

EUCALYPTUS GRAND IS PLANTATIONS.

(1)	(2)	(3)	(4) HA.	(5) PER CENT
		I. Kannivadi Range.		
1	1969	Eucalyptus Grandi plot in F.P. 30.22 in pachalur	1.01	30
		II. Palani Range.		
1	1977	Mallupallam	30.35	70
2	1977	Do.	16.19	70
		Total ..	46.54	
		III. Box Range.		
1	196*	Ammankoil Saragam	6.07	10
2	1973	Central Station (Korankani Kottaikudi Beat	2.00	20
		Total ..	8.07	

NOTE—The percentage of survival is copy of the condition of plantations as on 31st August 1982.

APPENDIX No. XIX.

List of Sandal Plantations Raised in Dindigul Division.

Serial number.	Year of Plantation.	Location or name of the plantation.	Area in hectare.	Survival in percentage.
(1)	(2)	(3)	(4)	(5)
		I. Kannivadi Range.		
1	1969	Virupakshi South F.C.	9.10	15
2	1970	Kcmalipatti	4.00	67
3	1971	Do.	5.00	25
4	1972	Do.	5.00	28
5	1973	Do.	5.00	10
6	1974	Do.	3.04	10
7	1975	Do.	2.84	5
8	1978	Karuveppilai Odai	2.50	4
		II. Ayyalur Range.		
1	1963	Mudimalai	4.00	27
2	1965	Do.	4,00	8
3	1966	Do.	4.00	10
4	1971	Moongil Karadu	1.00	63
5	1972	Mudimalai	1.00	14
6	1974	Do.	1.90	50
7	1976	Pillaiyarnatham	2.30	80
8	1981	Do.	4.40	(Failure,
9	1981	Pannamalai	6.00	Do.
		III. Palani Range.		
1	1981	P. V. Valley R.F.	2.02	20

NOTE.—The percentage of servival is the copy of the condition of plantation as on 31st August 1982.

APPENDIX No. XX.

The details length of External and Internal Reserve Boundaries in Dindigul Division.

Serial number.	Name of the Reserve Forest.	Length of the external boundary in kilometres.	Length of the Internal boundary in kilometres.	Total length in kilometres.
(1)	(2)	(3)	(4)	(5)
	I. Bodi Range.			
1	Valkaradu R.F.	10.5	..	10.5
2	Permalkoil Karadu R.F.	6.0	..	6.0
	TOTAL ..	16.5		16.5
	II. Periyakulam Range.			
1	P.H.S.S. R.F. (Varattar kanal and Iruttar karnal part) ..	27.0	4.0	3.10
2	Amburuvi R.F.	12.9	8.9	21.8
3	Sengalvarayar R.F.	8.4	6.8	15.2
4	Narungalthonimedu	8.9	3.6	12.5
5	Adukkam R.F.	21.3	6.0	27.3
6	Pambar R.F.	9.7	4.0	13.7
7	Agamalai and Thambirankanal	3.2	15.7	18.9
8	Murugamalai R.F.	27.4	..	27.4
	TOTAL ..	118.8	49.0	167.8
	III. Thandikudi Range.			
1	Maruthanadiyar R.F.	24.1	4.8	28.9
2	Kaduguthadi R.F.	3.2	..	3.2
3	Kallar, Ariyanathukanal koman kavi kanal	9.7	..	9.7
4	Koviladi R.F.	4.0	3.6	7.6
5	Pambukillar R.F.	7.2	..	7.2
6	Kokkopparai R.F.	16.9	..	16.9
7	Umaiyar R.F.	6.4	..	6.4
8	Kaduvanur R.F.	0.8	..	0.8
9	P.H.S.S. R.F. Part	14.5	5.6	20.1
10	Mankaradu R.F.	18.1	0.4	18.5
11	Naduvamalai	12.0	3.6	15.6
	TOTAL ..	116.9	18.0	134.9

(1)	(2)	(3) K².M.	(4) K.M.	(5) K.M.
	IV. Kannivadi Range.			
	Vonnilai R.F.	3.6	7.2	10.8
2	Kanian Kadu R.F.	10.1	..	10.1
3	Palani Hills, Northern slope R.F. (Part	..	8.0	8.0
4	Thevar malai R.F.	11.3	..	11.3
5	Palani Hills Northern slope	39.4	5.6	45.0
6	Sengattampatti	11.7	..	11.7
7	Chatrapatti R.F.	13.3	7.2	20.5
8	Sirvatkadu	16.9	5.6	22.5
	TOTAL ..	106.3	33.6	139.9
	V. Palani Range.			
1	P. V. Valley R.F.	27.4	9.7	37.1
2	Oliyamuthu R.F.	9.3	8.9	18.2
3	Kudiraiyar R.F.	19.3	4.8	24.1
4	Vilan Combai R.F.	12.4	1.2	3.6
5	Karadi kuttu R.F.	12.9	..	12.9
6	Periyampatti R.F.	9.7	..	9.7
7	Andipatti R.F.	32.2	8.4	40·6
	Total ..	113.2	33.0	146.2
	VI. Ayyalur Range.			
1	Mudi malai R.F.	1.65	..	16.3
2	Pillaiyarnatham R.F.	38.6	..	38.6
3	Panjanthangai R.F.	50.0	8.0	58.0
4	Thannikaradu R.F.	10.7	..	10.7
5	Sundamalai R.F.	6.0	0.8	
6	Pannamalailai R.F.	10·7	..	10.
7	Thoppasami malai R.F.	50.0	..	30.
8	Moongilkaradu R.F.	18.5	..	18.5
9	Rangamalai R.F.	10.5	2.4	12.9
10	Karumalai R.F.	8.4	2.0	10.4
11	Vandamalai R.F.	7.2	..	7.2
12	Kaluvadimalai (Sendurai R.F.)	9.7	1.1	10.8
13	yakottai R.F.	15.7	8.4	24.1
	TOTAL .	252.5	22.7	275.2

ABSTRACT.

Serial number.	Name of the range.	Length of the External Boundary in kilometres.	Length of the Internal Boundary in kilometres.	Total length in kilometres.
(1)	(2)	(3)	(4)	(5)
1	Bodi	16.5	..	61.5
2	Periyakulam	118.8	49.0	17.68
3	Thandikudi	116.9	18.0	134.9
4	Kannivadi	106.3	33.6	139.9
5	Palani	113.2	33.0	146.2
6	Ayyalur	252.5	22.7	275.2
	TOTAL ..	724.2	156.3	880.5

APPENDIX NO. XXI.

The Fort St. George Gazettee.

PART IV. B. EXTRAORDNARY.

(Published by Authority)

NO. 211] MADRAS FRIDAY SEPTEMBER 2, AS AMENDED IN ACT 14/80.

The following act of the Madras Legislature received the assent of the Governor on the2nd September 1955 and is hereby Published for General information.

ACT NO. XVII OF 1955.

WHEREAS there has been indiscriminate cutting of trees in hill areas in the state of Tamil Nadu involving large-scale deforestation and resulting in consideration soil erosion.

AND WHEREAS with a view to prevent deforestation and soil erosion and also to preserve the special characteristics of the hill areas as regards landcape, vegetal cover and climate, it is necessary to regulate the cutting of trees and also the cultivation of land in hill areas in the State of Tamil Nadu.

BE it enacted in the Sixth Year of the Republic of India as follows :

1. *Short title and application.*—(1) this Act may be called the Tamil Nadu Hill areas (Preservation of Trees) Act, 1955.

(2) It applies to all hill areas in the State specified in the Schedule and to such other hill areas as may, by modification, be specified by the Government.

(3) The Government may, by notification, exclude from any hill areas to which this Act applies, any areas within it, or include within any such areas any area in the vicinity, thereof.

2. *Definition.*—In this Act, unless the context otherwise requires :—

(a) Committee means any committee constituted under Section 2A and having jurisdiction.

(b) 'Cultivation', mean raising cerals, timbers or plantation crops but shall not inculde the raising of kitchen gardens or flower gardens.

Explanation.—"Kitchen Garden" in this clause means the area not exceeding fifty cents appartment to a residence and used for growing vegetables for bonafide consumption of the residents therein.

(c) "Government" Means the State Government.

(d) "New cultivation" means cultivations of land which remained uncultivated for three consecutive years.

(e) "Notification" means a notification published in the Tamil Nadu Government Gazettee.

(f) "Perscribed" means prescribed by rules made under the Act :

(g) "Tree" includes bamboo, but does not include brushwood,

After section 2 of the principal Act, the following sections shall be substituted viz :—

2. *A. Constitution of Committee.*—(1) The Government may be notification with effect from such date as may be specified therein, constitute for each hill area a Committee for the purpose of this Act Consisting of the following mmembers viz:

(a) The District Collector, having jurisidiction as chairman of the Committee,

(b) The District Forest Officer, having jurisdiction, over the hill area.

(c) The Tahsildar having jurisdiction over the hill area.

(d) The executive Engineer of the Agriculture Department incharge of soil conservation having jurisdiction over the area.

(e) The personal Assistant (General) to the Collector of the District who shall be secretary of the Committee.

2-B. *Meeting of the Committee.*—(1) The Committeee may meet as often as may be neces-sary and shall subject to the provisions of sub-sections (2) and (3) observe such rule of procedure n regard to transaction of business at its meeting (including the quoreem of meetings) as may be prescribed by the Government under this Act, provided th .t not more than two months shall elapse between one meeting of the Committee and another.

(2) The chairman of the Committee or in his absence any member nominated by him, in that behalf shall preside at a meeting of the Committee.

(3) All question at a meeting of the committee shall be decided by a majority of the votes of the members present and voting and in the case of a equality of votes, the chairman of the com-mittee or in his absence the person presiding shall have a second or casting vote.

2-C. *Vacancy in committee etc, not to invalidate acts or proceedings.*—No act or proceeding of the committee shell be deemed to be invalid by reason only of the existence of any vacarcy in the committee or any defect in the nomination of s member there is to or on the ground only that more two months have elapsed between one meeting of the committee and anorher.

(2) The chairman of the committee or in his absence any member nominated by him, in that behalf shall preside at a meeting of the Committee.

(3) All question at a meeting of the committee shall be decided by a majority of the votes of the members present and voting and in the cases of an equality of votes, the chairman of the committee or in his absence the person presiding shall have a second or casting vote.

2-C. *Vacancy in committee etc, not to invalidate acts or proceedings.*—No act or proceeding of the committee shall be deemed to be involid by reason in only of the existence of any vacancy in the committee or any defect in the nomination of a member there to or on the ground only that more than two months have elapsed between one meeting of the committee and another.

For Sub-section (1) of section 3 of the principal :—Act the following Sub-section, shall be substituted viz., (1) No person shall without the previous permission in writting of the committee.

(a) Cut up root or burn or cause to be cut, uprooted or burnt any tree or

(b) Fell or remove any tree which, constitutes danger to life or property or is dead on diseased or wind fall or has silviculturally matured or

(c) Cut or remove any tree for the improvement of coffee crop in any coffee plantation in such area in any hill areas as the Government may by noti fication specify in this behalf pro-vided that where permission to cut or remove a tree in granted on the grounds referred to in clause (a) to (c) above, the committee shall impose as condition the effective regeneration of an equal-number of the same or other suitable species of trees and for that purpose may requires the person to whom the permission is granted to deposit with the Committee sum not exceeding one hundred rupees for each tree permi:)ted to be cut or removed,. Section 3(1) (A) "Not withstanding anything contained in sub-section (1) permission may be granted by the Government to any prson to clear any land by cutting, uprooting, or burning or causing to be cut, uprooted, or burnt, any tree subjcet to the condition that the land so cleared shall be used for growring coffee, or tea.

(2) No person shall cut or other wise damage, or cause to be cut or damaged, the branch or any tree:

Provided that this shall not be deemed to prevent the pruning of any tree as required by ordinary agricultural or horticultureal practices.

Sub-section (2), Section (3) :

Provided further that nothing contained in this sub-section shall be deemed to prevent the cutting or pruning of the branch of any tree for the purpose of providing proper shade for coffee or two plantation.

1. Prohibition of cultivation(1) No person shall use or cause to be used any land with slope or more than one in three for any purpose other than the growing of trees.

2. No person use, or cause to be used any land with a slope of less than one in three for new cultivation except with the previous permission of the committee which may while granting uch permission, impose such conditions as it may deem fit including those relating to soil conser-vation measures.

3. No person shall after the expiry of one year from the date on which this Act comes in force in any hill areas use, or cause to be used for cultivation any land in such hill areas with slope of less than one in three except with the previous permission of the committee, may, while granting such permission, impose such conditions as it may deem fit including conditions relation to soil conservation measures.

4. Nothing contained in, sub-section (2) and (3) shall apply to any land with a slope less than one in ten.

5. *Application for permission.*—every application for Permission shall be made in writing to the committee and shall be in such form and shall contain such particulars as may be prescribed

6. *Appeal*—Any person aggrieved by an order refusing to grant permission under section or section 4 may, within two months of the receipt of such order, proper an appeal in writing the Government and the Government shall after giving the applicant an apportunity of being heard, pass such order as they may think fit.

7. *Penalty.*—Any person who is guilty of an offence under section 3 or section 4 who contravenes any condition imposed in a permission granted under this Act, shall on conviction be punishable with imprisonment which may extend to one year or with fine which may extend to five thousand rupees or both.

8. *Forfeiture.*—Any Court convicting a person of any offence under section 7 may direct the forfeiture to Government of all tools and other articles used in the commission of the offence or which are the subject matter of offenced.

Section 9.—Omitted.

10. *Power of entry and inspection.*—The Committee, may, with a view to ascertaining whether there has been a contravention of any of the provisions of this Act or any rule or order made there under, at any time within or without its subordinates and servants, enter into and inspect any place.

11. *Cognizance of offences.*—No court shall take cognizance of any offence punisable under section 7 except on a complaint in writing of the Committee.

12. *Power to make rule.*—The Government may by notification make rules to carry out the purposes of this Act.

13. *Saving.*—Nothing in this Act shall apply to the cutting or removal of any tree in accordance with section 133 of the Code of Criminal Procedure 1973 (Central Act 2/74).

14. *Power to remove difficulties.*—If any difficulty arises in giving effect to the provisions of this Act, the Government may, as occasion may require, by order to anything with which appears to them to be necessary for the purpose of removing the difficulty.

15. *Constuction of ofeences "Tamil Nadu Hill Stations (Preservation of Trees) Act".*—References to "The Tamil Nadu Hill Stations (Preservation of Trees) Act", in any Act or in any rules notification, proceeding, order, regulation, by-law or other instrument made or issued under such Act or rules, orders or notification made or issued under the principal Act shall be construed as reference to "The Tamil Nadu Hill Areas (Preservation of Trees), Act.

THE SCHEDULE.

[*See* Section 1(2).]

1. Coonoor Municipal Area.
2. Kodaikanal Municipal Area.
3. Kottagiri Panchayat Area.
4. Yercaud Panchayat Area.

Madurai District Hill Areas :

2. Vilpatti
3. Poombarai
4. Pannaikadu
5. Thandigudi
6. Kamanur (G.O. Ms. No. 2561, Agriculture. dated 6th August 1966).

1. Adukkam.
2. Kilakkuchettipatti.
3. Kookkal.
4. Mannavanur.
5. Pachalur.
6. Periyur.
7. Poolathur.
8. Poondi.
9. Vadakavunji and
10. Vellagavi (G.O. Ms. No. 1153, Forests and Fisheries department, dated 2nd December 1977- Collector's R. Dis. No. 345697/76, dated 6th March 1978).

Addition.

1. Sirumalai — Dindigul Taluk.
2. Adalur
3. Megamalai
4. Gandamanickanur } Periakulam Taluk.
5. Kadamalaigundu }
6. Bodi Mettu }
7. Lower Camp }
8. Suruliyar Hydro Electric Project. } Uthamapalayam.
9. Agamalai. }

(G.O. Ms. No. 1172, Forest and Fisheries Department, dated 25th October 1979.)

(Sd.) PANNERSELVAM,
Huzur Head Assistant (Y).

APPENDIX NO. XXI-A.

Copy of G.O. Ms. No. 636, Forests and Fisheries Department, dated 14th March 1982, (Chic Conservator's No. H4/62661/79-17, dated 26th May 1982).

Abstract.

Forests—Tamil Nadu Hill Areas (Preservation of Trees) Act, 1955-Madurai District—Dindig and Uthamapalayam Taluks—Inclusion of areas under the purview of the Act—Notification under section 1 (3) of Act—Publication on Tamil Nadu Government Gazette and District Gazettes —Ordered.

Read again :

(1) G.O. Ms. No. 1172, Forests and Fisheries Department, dated 25th October 1979.

(2) G. O. Ms. No. 784, Forests and Fisheries Department, dated 26th June 1981.

Read also :

From the Collector of the Madurai District ROC. Y-1/230867/81, da ted 15th February 1982.

ORDER :

The Government have enacted the Tamil Nadu Hill Area (Preservation of Trees) Act, 1955 Act XVII of 1955 as amended is Act XIV of 1980) providing for regulation of felling of trees in the hill areas of Tamil Nadu with a view to preventing deforestation and erosion and also to preserve the special characteristics of the hill areas as regards lanscape, vegetal cover and climate. The Act applies to it and to such other hill State specification, be specified by the Government.

2. The Collector of Madurai District has now recommended that the areas mentioned below may be notified under the provisions of the Tamil Nadu Hill areas (Preservation of Trees) Act, 1955.

Serial number.	*Hill area to be notified.*	*Taluk.*	*District.*
(1)	(2)	(3)	(4)
1	Bodinaickanur	Uthamapalayam	Madurai District.
2	Bodi North Hills Village	Do.	Do.
3	Melachakkanathapuram	Do.	Do.
4	Kottagudi	Do.	Do.
5	Devaram	Do.	Do.
6	Pandrimalai	Dindigul	Do.
7	Manalur	Do.	Do.
8	Ayyampalayam	Do.	Do.
9	Kodalvavi	Do.	Do.
10	Kasavanampatti	Do.	Do.
11	Bhatrapatti	Do.	Do.
12	Parapatti	Do.	Do.
13	Narasingapuram	Do.	Do.
14	Manalur	Do.	Do.
15	Chittaravu	Do.	Do.
16	Ayyampalayam	Do.	Do.
17	Pandrimalai	Do.	Do.
18	Thonimalai	Do.	Do.
19	Sirangadu	Do.	Do.
20	Vadagadu	Do.	Do.

The Collector has also suggested certain amendments to the notification issued in the Government order first read above.

(2) The Government accept the recommendation of the Collector of Madurai District. The notifications annexed to this order will be published in the next issue of the Tamil Nadu Government Gazette.

(3) The Director, Public (Translations) Department, Madras-9, is requested to send a Tamil translation of the notifications to the Works Manager, Government Central Press, Madras for their publication in the District Gazette of Madurai.

(4) The Works Manager, Government Central Press is requested to send five copies each of the notifications to be Government the Chief Conservator of Forests (G) and the Collector of Madurai District after their publications.

(By Order of the Governor)

APPENDIX No. XXII.

Details of areas notified under "T.P.P.F." Act in Madurai North Division.

Holding Taluk..	*Village.*	*Holding number.*	*Survey number.*	*Extent.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)
Dindigul ..	Adalur village ..	133	3	5,41	Copy of Madurai Collector's Roc. No. 13,96443lG 75, dated 6th October 1975.
			4/1	11.66	
			4/2	11.72	
			5	6.68	
			6	18.55	
			7	87.08	
			24/3	30.03	
			294/2	41.92	
	Kannivadi	133	2	17.87	
			5	18.98	
			7	50.94	
			10	238.00	
	Manalur		1/2	30.60	Madurai Collector's D. Dis. 227190/79 dated 18th January 1982
			11	9.87	
			21	10.27	
			22/2	3.03	
			23	788.97	
			77	30.45	
			100	3.86	
			108/2	0.84	
		248	101	20.55	
			102	5.95	
			108/1	136.96	
Palani	Desaripatti	91	260	4.04	
			268/1	55.96	
	Periammapatti ..	172	434	510.91	Do.
			438	27.25	
			455	346.75	Do,
Periayakulam Taluk	Megamalai Village		88/1	28.60	Roc. No. 13. 96443/G/75 and L. dated 6th October 1975 of Madurai Collector.
			78/1	2.60	
			107	20.37	
			124	2.44	
			130/1	3.66	
			114	2.50	
			123	18.40	
			154	9.70	
			169	14.27	
			135	3.17	
			136/1	16.75	
			137	35.62	
			141	35.28	
			144	4.02	
			67	4.60	
			71/1	10.66	
			74/1	8.12	
			56	73.85	
			62	4.16	
			58	29.20	
			70/1	1.48	
			72/1	20.58	
			73	10.52	
			75	1.58	
			343	90.84	
			346	12.84	
			347	28.36	
			142	248.22	
			142/2	20.00	

Holding Taluk.	*Village.*	*Holding number.*	*Survey number.*	*Extent.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)
Periyakulam Taluk.	Megamalai Village.		350	48.22	
			142	20.00	
			142/2	15.00	
			217	34.66	
			340	33.65	
			341	39.02	
			342	0.20	
			258	14.57	
			265/1	6.19	
			258	12.73	
			256/2	247.70	
			246	70.01	
			248	8.78	
			268	7.45	
			267	28.55	
			260	50.94	
			262/2	36.77	
			395	40.00	
			51	51.76	
			352	1.01	
			353	77.69	
			375	5.34	
			376	8.16	
			377	29.44	
			379	21.00	
			380	17.64	
			354	73.39	
			374/1	9.73	
			/2	17.20	
			/3	27.67	
			381	22.75	
			387/1	12.34	
			/2	0.81	
			388	0.12	
			389	0.80	
			251/1	1,805.76	
			272	447.69	
			359	40.04	
			360	50.41	
			361	5.63	
			362/2	7.10	
Uthamapalayam	Agamalai	227	51 52 53	34.25	Madurai Collector's Roc. No. 1396443/G/75 dated 6th October 1975.
		274	1105/1	48.95	
		299	172	69.70	
		303	40/1 40/2	35.19	
		310	1367	54.25	
		344	227	33.50	
		390	672	32.73	
		392	2227	33.81	
		52	63 108 117 195	42.47	

Holding Taluk.	*Village.*	*Holding number.*	*Survey number.*	*Extent.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)
		136	176	14.27	Madurai Collector's No. J3/96443/G/75, dated 27th January 1976.
		351	177	19.06	
		347	227/3	33.76	
		110	276/2	22.79	
			276/1	8.80	
		300	734	20.74	
		88	482/2	16.63	
		201	513/1	17.10	
		36	513/2	17.37	
		61	514/1	15.02	
		178	514/2	15.01	
		274	1105/3	1,836.71	
		458	1103/3	16.43	
		498	1343	32.28	
Uthamapalayam	Uthamapalayam	111	679	33.40	Madurai Collector's Roc. No. 96443/G/75, dated 6th October 1975.
	Bodi	73	785/1	54.45	
			640/1	4.98	
			/2	13.33	
		147	236/1	45.75	
		339	78	259.30	
			74/1	0.73	
Uthamapalayam	Bodi ..	..	74/2	28.77	..
			74/3	14.67	
			76	3.50	
			77	10.52	
		388	750	15.04	
			753	38.53	
			753/3	6.00	
	Kottagudi ..	497	1/1	0.72	
			20/2	0.42	
			21/2	0.21	
			22/2	0.05	
			29/1	0.04	
			30/5	0.09	
			31/2	0.13	
			32/3	0.09	
			134/2	0.11	
			135/2	0.24	
			143/2	0.28	
			146/2	0.30	
			150/2	0.09	
			202/2	0.24	
			204/2	0.83	
			209/2	0.18	
			210/2	0.14	
			211/2	0.14	
			212/2	0.28	
			228/2	0.06	
			230/2	0.11	
			231/2	0.17	
			232/4	0.13	
			233/2	0.18	
			236/2	0.16	
			237/2	0.15	
			237/2	0.17	
			240/2	0.10	
			241/2	0.07	
			242/2	0.12	
			245/2	0.32	
			247/2	0.38	
			257/2	0.26	

Holding Taluk.	*Village.*	*Holding number.*	*Survey number.*	*Extent.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)
	Kottagudi ..		259/2	0.13	
			258/2	0.20	
			260/2	0.11	
			286/2	1.34	
			287/2	0.18	
			292/2	0.28	
			598/2	0.11	
			701/2	0.09	
			982/2	0.24	
			983/2	0.15	
			993	0.77	
			994	0.09	
			998	1.09	
				11.74	
		12	470	9.77	
		13	471	6.69	
			483	0.60	
			485	0.23	
		20	1011/1	4·27	
			1011/3	0·11	
			1012/1	2.80	
				24.41	
		22	419	5.20	
			429	2·68	
				788	
		24	913	3.64	
			916	3.08	
			927	2.33	
			1280	3.30	
			884	1.10	
			893	1,45	
			904	1.35	
			910	0.87	
			882	0.73	
			887	1.73	
				19.58	
			1175	1.89	
			1144	4.30	
				6.09	
			1	5.16	
			2/2	1.47	
				6.63	
		131	615	8.69	
		132	1013	2.84	
			1013	6.72	
				9.56	

(1)	(2)	(3)	(4)	(5)	(6)
		136	833	5.62	
			841	1.09	
				6.71	
		144	1173	9.57	
		148	476	7.24	
			482	0.67	
				7.91	
Uthamapalayam	Kottagudi --	149	477	5.56	
		156	756	7.85	
		164	710	1.53	
			717	3.72	
			723	2.04	
			764	0.68	
				7.97	
		165	1014	3.72	
			1024	4.95	
				8.67	
		166	943/2	5.87	
			943/2	0.89	
				6.76	
		167	202/1A	0.23	
			202/3A	2.93	
			209/1A	1.23	
			203/1	2.23	
				6.62	
		16	519	2.28	
			522	3.51	
			520	3.12	
				8.91	
		[illegible]	734	5.90	
			720/1	1.00	
				6.90	
		171	409	13.40	
			437	3.85	
			444	2.21	
				19.36	
		174	207	3.46	
			216	1.91	
			215	2.84	
				8.21	

(1)	(2)	(3)	(4)	(5)	(6)
		175	208	3.42	
				2.76	
				6.18	
		177	917	41.98	
		180	714	10.63	
		190	748	8.73	
		191	143/1	3.70	
			143/3	5.38	
				9.08	
		193	834	7.04	
			843	0.73	
			846	0.79	
			853	0.73	
				9.29	
		197	524	8.30	
			525	0.30	
			531	0.80	
			550	0.11	
				9.51	
		201	222/1B	1.60	
			222/3	0.45	
			193/1A	0.98	
			188/3	0.68	
			241/1	0.59	
			243/3	1.17	
				5.47	
		202	188/2	8.43	
			240/1	0.71	
			240/3	0.82	
				9.96	
		203	740	3.77	
			773	3.70	
				7.47	
		204	822	2.12	
			822	6.30	
			850	3.45	
			854	0.09	
			857	0.95	
				13.12	
		206	630	1.86	
			637	0.46	
			647	0.94	
			648	2.38	
				5.64	

(2)	(3)	(4)	(5)	(6)
	208	424	6.85	
	212	921	7.27	
		923	0.86	
			8.13	
	216	46	11.46	
	218	339	0.17	
		343	1.24	
		353	5.59	
			7.00	
	220	694	1.31	
		709	0.80	
		711	4.70	
		724	2.47	
			9.28	
	221	749/1	4.00	
		750/1	0.50	
		2	1.24	
			5.74	
	223	418	12.88	
	224	859	0.82	
		869	1.45	
		875	3.16	
			5.43	
	226	932/1	55.20	
	227	128/1	3.04	
		295	1.17	
		310	1.11	
		939	1.10	
			6.42	
	236	1191	5.09	
	238	417	9.37	
	240	116	0.98	
		798	7.60	
			8.58	
	242	267	6.15	
		271	2.69	
		273	5.30	
			14.14	
	244	200/1	21.07	
	245	212/1	6.12	
		212/3	0.72	
			6.84	

(1)	(2)	(3)	(4)	(5)	(6)
		329	247/1B	4.00	
			8B	3.91	
				9.91	
		330	115/3	6.86	
			754/1	7.87	
			324/1	8.40	
			325	3.62	
				19.89	
		333	246	6.12	
		336	515	1.04	
			545	3.45	
			566	1.36	
				5.85	
		339	727	3.43	
			767	0.42	
			771	0.21	
			763	0.97	
			770	3'09	
			776/1	1.26	
			2	0.56	
				9.94	
		242	247//1A	0.29	
			/1C	1.50	
			247/3A	6.57	
			/3C	3.67	
				12.03	
		345	489	7.68	
			509/2	2.61	
				10.29	
		362	875	0.90	
			886	0.84	
			889	0.37	
			887	1.66	
			890	1.46	
				5.23	
		385	1008	6.46	
			1009	3.58	
				10.04	
		366	753	8.00	
		368	862	0.84	
			880	2.85	
			881	0.83	
			930	6.17	
				10.69	

(1)	(2)	(3)	(4)	(5)	(6)
		371	582	8.92	
		372	82/2	0.41	
			92	0'81	
			312	10.66	
				11.88	
		373	28/1	1.79	
			286/3	20.81	
				22.60	
		374	979/2	7.25	
			1	4.72	
				11.97	
		375	991	3.31	
		378	600	9.44	
		379	614	20.60	
		382	618	5.06	
		383	468	11.11	
				0.45	
				11.66	
		383	319/2	7.27	
			313	8.05	
				15.32	
		388	230/1	3.45	
			3	0.14	
			235/2	2.66	
			237	0.83	
			3	0.30	
			239	2.18	
				9'56	
		389	870	2.71	
			938	0.49	
			940	5.18	
				8.38	
		392	150/1	20.40	
		395	396	7.93	
			396	11.26	
			398	1.13	
			402	2.89	
			408	9.06	
			431	3.14	
				35.41	

(1)	(2)	(3)	(4)	(5)	(6)
		396	970	4.32	
			971	2.82	
				7.14	
		397	204/1	3.28	
			/3	6.63	
				9.91	
		401	1076/1	22.05	
		402	228/1	5.25	
		403	234/2	6.41	
		406	920/1	1.71	
			2	3.40	
			3	0.54	
				5.65	
		420	1011/2	4.74	
			1012/2	0.64	
				5.36	
		433	780	11.64	
		439	84	6.33	
		448	27/1B	0.30	
			2B	4.27	
			31/2	0.91	
				5.48	
		454	196	4.90	
			350	9.42	
				14.32	
		455	197	6.99	
			198	2.85	
				9.84	
		456	223	7.05	
			224/1	5.71	
				12.76	
		463	1181	17.82	
		465	478	5.87	
			481	0.81	
				6.68	
		467	587	3.15	
			580-1	4.29	
				7.44	

(1)	(2)	(3)	(4)	(5)	(6)
		469	475-2	3.27	
			-1	5.58	
			491	5.25	
			508	2.13	
				16.23	
		470	688	1.70	
			699	27.80	
			700	2.85	
			701	11.36	
			706-1	1.06	
				44.77	
		477	30-6	0.20	
			47-6	1.65	
			53	1.16	
			54-1	1.85	
			-4	0.34	
			63-3	0.60	
			-6	0.13	
			64-14	0.18	
			66	0.92	
			87	0.82	
			99	0.34	
			115	2.80	
			121	1.83	
			131-1	1.62	
			-4	1.19	
			968-1	1.77	
			983-3	0.96	
			-5	0.23	
				18.59	
		478	488	5.68	
		480	258-1	1.32	
			258-3	3.62	
			260-1	13.44	
			-3	0.16	
				18.54	
		483	125-1	7.12	
			-3	0.08	
			300	0.72	
			301	2.32	
			303	4.41	
			3M5	10.43	
				25.08	
		486	459	19.78	
			521	0.48	
			525	19.34	
				39.60	

(1)	(2)	(3)	(4)	(5)	(6)
		489	585	12.21	
			586	0.85	
			1288	3.14	
			1289	2.77	
				18.97	
		490	980	11.01	
		491	311	2.68	
			314	2.53	
			781-1	10.41	
			788	3.63	
			804	2.17	
			806	1.81	
				23.23	
		492	231-1	0.50	
			231-3	8.78	
				9.28	
		503	27-1A	5.23	
			27-2A	0.24	
				5.47	
		506	956	393.21	
			957-1	78.01	
			957-2	79.64	
				550.86	
		509	995	8.31	
			0.96	1.95	
			999	0.68	
			1000	0.18	
			1001	2.95	
			1002	5.87	
			1004	3.95	
			1048	3.51	
			1049	0.38	
			1050	1.33	
			1051	03.9	
			1079	205.76	
			1080-1	0.05	
			1080-3	0.04	
			1080-4	0.01	
			1081-1	0.03	
			1081-3	0.03	
			1082-1	0.05	
			1082-3	0.05	
			1083-1	0.07	
			1083-3	0.06	
			1110	48.27	
			1112	48.83	
			1084-1	0.18	
			1084-3	0.17	
			1085-1	0.08	
			1085-3	0.07	

(1)	(2)	(3)	(4)	(5)	(6)
		509-*cont*.	1087-1	0.21	
			1087-3	0.12	
			1088-1	0.03	
			1088-3	0.04	
			1089-1	0.11	
			1090-1	0.10	
			1090-3	0.09	
			1091-2	0.05	
			1092-1	0.04	
			1092-3	0.06	
			1093-1	0.01	
			1093-3	0.12	
			1094-2	0.03	
			1095-1	0.03	
			1906-1	0.04	
			1096-3	0.03	
			1097-1	0.07	
			1097-3	0.05	
			1099-1	0.05	
			1100-2	0.03	
			1101-2	0.03	
			1102-1	0.03	
			1102-3	0.03	
			1103	0.06	
			1104-2	0.04	
			1105-2	0.04	
			1106-2	0.03	
			1107-1	0.02	
			1109-1	0.04	
			1109-3	0.05	
			1111-1	0.04	
			1111-3	0.11	
			1114-1	0.10	
			1114-13	0.12	
			1115-1	0.08	
			1116-1	0.04	
			1116-3	0.01	
			1117-1	0.02	
			1117-3	0.03	
			1118-1	0.03	
			1118-3	0.02	
			1119-1	0.08	
			1119-3	0.03	
			1120-1	0.02	
			1120-3	0.02	
			1121-1	0.01	
			1121-3	0.04	
			1122-1	0.17	
			1122-3	0.04	
			1123-1	0.07	
			1123-3	0.07	
			1124-1	0.68	
			1124-3	0.07	
			1125-1	0.20	
			1125-3	0.10	
			1126-1	0.03	
			1126-3	0.08	
			1127-1	0.08	
			1127-3	0.06	
			1128-1	0.02	
			1128-3	0.01	
			1129-1	0.08	
			1129-3	0.06	
			1130-1	0.[illegible]7	
			1130-3	0.04	

(1)	(2)	(3)	(4)	(5)	(6)
	509—*contd.*		1131-1	0.06	
			1131-3	0.03	
			1132-1	0.02	
			1132-3	0.07	
			1133-1	0.12	
			1119	0.78	
			1150	0.77	
			1160	0.55	
			1161	0.27	
			1167	0.64	
			1168	0.46	
			1180	0.41	
			1185-1	0.79	
			1186	11.21	
			1195	4.86	
			1197	10.01	
				930.38	
		512	649	20.68	
		514	584	10.18	
		515	239-1	4.32	
			-3	2.80	
				7.12	
		516	194	7.61	
		522	1241	4.32	
			613-1	5.00	
				9.32	
		523	1266	5.94	
		527	1226	5.75	
		528	439	11.11	
		539	1252	18.60	
		547	1047-3	6.81	
		548	236-1	0.47	
			-3	0.04	
			222-1	2.83	
			226-5	13.57	
				16.91	
		554	218	8.80	
		557	1225	19.64	
		558	1274	3.46	
			1276	3.54	
				7.00	
		6C	1273--31	8.08	
				3.00	
				11.08	

(1)	(2)	(3)	(4)	(5)	(6)
		562	1269	13.23	
		567	1271	9.10	
		574	45-1A	0.14	
			-3C	0.63	
			-3F	0.41	
			52-1	1.35	
			64-12A	0.06	
			129-1	1.13	
			316-1A	0.76	
			1F	1.86	
			-11	0.38	
			784/1A	0.59	
			791-1A	1.95	
			57-4	0.63	
			56-3	0.17	
			59-7	0.42	
				10.48	
		575	45-1B	0.06	
			-3B	0.69	
			-3E	0.41	
			46-2A	0.46	
			52-2	1.32	
			64-12E	0.06	
			83-2	0.52	
			129-2	1.14	
			316-1C	0.76	
			-1D	1.6	
			6-1H	0.38	
			56-4	0.18	
			56-9	0.58	
				8.42	
		576	45-1C	0.11	
			-3A	0.61	
			-3D	0.41	
			46-2B	0.48	
			52-B	1,19	
			64-12C	0.06	
			316-1B	0.76	
			-1E	1.86	
			-1C	0.38	
			784-1C	0.59	
			791-1C	2.30	
			760-2	0.87	
			974-2	0.96	
			132	0.65	
			56-2	0.26	
			131-5	1.24	
			58	0.30	
			59-8	0.42	
				13.45	
		577	420-1	2.99	
			427	0.95	
			435	3.61	
			222-2	2.84	
			276-4	2.00	
				12.39	

(1)	(2)	(3)	(4)	(5)	(6)
		578	1268-2	0.87	
				4.76	
				5.63	
		581	800-1	18.10	
			185-2	4.46	
			249-2	6.12	
				10.58	
		591	324-3	8.41	
			50-1	0.60	
			63-7A	0.81	
			104-1	1.97	
			55-3B	0.78	
			62-1C	0.06	
			63-4	0.79	
			74	0.72	
			88	2.92	
			90	0.31	
			124	1.68	
			65-1	0.17	
			71-1A	1.28	
				12.09	
		594	50-2	0.43	
			57-2A	0.48	
			59-1A	0.34	
			63-7B	0.55	
			968-2A	0.20	
			62-1B	1.98	
			795-1A	0.47	
			86	2.79	
			105-1	0.60	
			131-3	1.22	
			48-2C	1.79	
			49	11.56	
		595	50/3	0.90	
			59/1B	0.78	
			104/2	2.09	
			55/3H	0.65	
			51/1	1.61	
			122/3A	0.83	
			62/1D	0.07	
			71/1B	0.36	
			1C	1.07	
			54/3	0.42	
			55/4	0.17	
			5	0.17	
			59/2	0.56	
			85	1.50	
			62/3	0.41	
			63/1	0.42	
			983/1	0.34	
			2	0.93	
				13.28	

(1	(2)	(3)	(4)	(5)	(6)
		596	57/2B		
			55/3A	0.87	
			3C	0.60	
			51/2	0.27	
			105/3H	1.22	
			795/1B	1.63	
			122/1	0.96	
			2	1.39	
			787/1	0.66	
			54/8	0.49	
			68	0.57	
			54/65	0.98	
			130/1	0.05	
				1.06	
				10.75	
		608	37/1	0.72	
			3	1.55	
			39	0.72	
			43	0.26	
			60/4	1.34	
			64/6	0.03	
			69	0.36	
			72	0.34	
			91	0.97	
			102	1.54	
			106	2.79	
			112	1.00	
			114	1.51	
			97	0.34	
				13.67	
		609	1294	15.93	
		610	1295	10·82	
		618	20/1	1.26	
			20/3	4.58	
				5.84	
		620	202/1B	3.07	
			3B	2.23	
			203/2	0.95	
			209/1B	0.26	
			3A		
				6.59	
		621	202/3C	3.16	
			203/3	2.22	
			209/1C	0.87	
			3E	0.36	
				6.61	
		623	1113	97.92	
			1146	0.61	
				98.53	

(2)	(3)	(4)	(5)	(6)
	624	754/1o	6.25	
		329	4.70	
			10.95	
	625	726/1	3.00	
		327	3.26	
		761	2.26	
		760	1.48	
			10.00	
	626	726/2	5.62	
		320	1.18	
		322	1.51	
			8.31	
	627	1297/1	6.00	
	655	1305/1	6.25	
	639	1310/1	12.95	
	642	581	8.52	
	645	579/1	1.90	
		580/4	5.52	
			7.42	
	646	579/2	7.43	
	647	579/3	7.43	
	648	580/2	7.43	
	649	580/3	7.43	
	652	851	4.88	
		853	0.13	
		856	0.72	
			5.73	
	657	42/2	0.62	
		82	1.29	
		94	0.91	
		783	1.79	
		793	3.68	
			8.29	
	660	713/2	13.47	
	661	713/1	11.74	
	664	1312	10.46	
	724	800/2	4.30	
		802/4	15.63	
			19.95	

(1)	(2)	(3)	(4)	(5)	(6)
		725	801/2	18.10	
		726	802/1	19.93	
		727	802/2	19.93	
			403	4.47	
			404	1.30	
		738	286/5	10.72	
			703	5.52	
		741	1233	10.50	
		742	1234	15.73	
		5	22	6.06	
		6	1/1	11.00	
		8	54	21.93	
		10	59/1	14.98	
			2	0.04	
		15	5/ 1	0.78	
			2	0.98	
			7	3.08	
			8	1,38	
		21	31	7.68	
		24	70	10.35	
		24	17	36.05	
			18	2.40	
			19	1.16	
			20	0.07	
		30	21	17.76	
		32	86	6.68	
			87	32.95	
			88	12.98	
				109.97	
		26	38	9.66	
			89	2.49	
			90	2.71	
			91	0.80	
				15.66	
		27	49	7.39	
		28	48/1	7.77	
Kottagudi	Uthamapalayam Taluk.	124	702	4.05	Madurai Collector's R.O.C. No.13, 96443/G/75;7 dated 6th October 1975.
			703	5.52	
			704	3.00	
			705	1.72	
			868	0.11	
			905	0.69	
			1233	10.50	
			1234	15.75	
		117	917	41.98	
		226	932/1	53.08	
			610	31.89	
			612	1.42	
		284	613	25.60	
		285	438	28.32	
			440	1.50	
			441	0.42	
			445	2.35	

(1)	(2)	(3)	(4)	(5)	(6)
Uthamapalayam taluk—*cont.*		384	74	0.73	
Kottagudi—*cont.*			85	1.50	
			88	2.92	
			90	0.31	
			124	1.68	
			130/1	1.06	
			131/3	0.60	
			293/2	1.38	
			64/4	0.07	
			68	0.98	
			316/2	0.64	
		467	579	16.76	
			580	24.67	
			587	3.15	
		470	688	1.70	
			699	27.38	
			700	2.85	
			706/1	1.06	
		486	459	19.78	
			521	0.48	
			535	19.34	
Mannan Devan Hills		509	984	1.05	
			985	0.96	
			986	1.36	
			987	2.56	
			993	0.77	
			994	0.09	
			995	8.31	
			996	1.95	
			997	0.61	
			998	1.09	
			999	0.68	
			1000	0.18	
			1001	2.95	
			1002	5.87	
			1004	3.95	
			1048	3.51	
			1049	0.38	
			1050	1.33	
			1051	0.39	
			1079	205.76	
			1080	0.18	
			1081	0.19	
			1082	0.19	
			1083	0.17	
			1084	0.46	
			1085	0.22	
			1086	0.20	
			1087	0.45	
			1088	0.11	
			1089	0.30	
			1090	0.25	
			1091	0.08	
			1092	0.13	
			1093	0.26	
			1094	0.06	
			1095	0.06	
			1096	0.09	
			1097	0.16	
			1098	0.02	
			1099	0.09	
			1100	0.07	
			1101	0.05	

(1)	(2)	(3)	(4)	(5)	(6)
Kannan Devan Hills—*cont.*			1102	0.08	
			1103	0.10	
			1104	0.08	
			1106	0.08	
			1105	0.06	
			1107	0.07	
			1108	0.07	
			1109	0.12	
			1110	48.27	
			1111	0.23	
			1112	48.83	
			1113	97.92	
			1114	0.47	
			1115	0.12	
			1116	0.09	
			1117	0.09	
			1118	0.09	
			1119	0.19	
			1120	0.97	
			1121	0.10	
			1122	0.46	
			1123	0.26	
			1124	0.30	
			1125	0.30	
			1126	0.17	
			1127	0.24	
			1128	0.02	
			1129	0.20	
			1130	0.16	
			1131	0.14	
			1132	0.15	
			1133	0.16	
			1146	0.61	
			1149	0.78	
			1150	0.77	
			1160	0.53	
			1161	0.27	
			1167	0.64	
			1168	0.47	
			1180	0.41	
			1185	562.94	
			1186	11.22	
			1195	4.96	
			1197	10.01	
			802	40.02	
Bodi West Hills Village			111	30.28	
		113	342	38.05	
The-Varm Hills		24	17	36.05	
		32	87	32.95	
Bodi North Hills		1	49	14.88	Madurai Collectors DD's 227190/79 dated 18—1—82.
			327	5.80	
			530	0.40	
		11	679	32.40	
			127	3.08	
			130	1.87	
				4.95	

(1)	(2)	(3)	(4)	(5)	(6)
Bodi North Hills—cont.		22	399/1	4.68	
			400/1	12.70	
				17.38	
		26	861	6.21	
		37	50	5.92	
			51	5.39	
			52/2	5.45	
			56	0.81	
			55	1.97	
			52/1	18.11	
				37.65	
		38	102	1.62	
			103	2.25	
			109	2.16	
				6.03	
		45	316	7.13	
		46	408/2	3.76	
			417/2	4.17	
				7.93	
		48	543	3.80	
			548	2.20	
				6.00	
		51	671/1,2A	13.84	
		53	40/1	17.96	
			35	0.75	
				18.71	
		55	754/1&3	11.74	
		61	121	5.06	
			117	1.56	
				16.62	
		66	445/5	3.95	
			403/8B	7.50	
			411/1A	3.95	
				15.40	
		69	549	5.90	
			613	1.48	
			628	3.23	
				10.61	

(1)	(2)	(3)	(4)	(5)	(6)
		71	743	13.86	
		[illegible]	785/1	54.45	
			840/1,2	50.58	
			45	19.45	
			785/2	13.13	
				137.61	
		77	18/1	7.76	
			29	7.01	
				14.77	
		82	560	1.15	
			579/1	0.85	
			621	1.61	
			716	1.78	
				5.39	
		83	573	2.13	
			574/1	1.79	
			577	1.76	
			708/1, 2	3.28	
				7.96	
		87	825	8.54	
		91	237	21.37	
		93	518	5.10	
		98	39	10.18	
		100	92	1.66	
			91/1	6.57	
				8.23	
		103	95/1	7.26	
		110	403/5	5.86	
			403/1A	0.72	
			411/1C	3.95	
				10.53	
		115	422/2	0.16	
			422/3	2.77	
			423/1,2	9.94	
				12.87	
		120	566	3.20	
			551	5.44	
			557	0.81	
			566	1.57	
				11.02	

(1)	(2)	(3)	(4)	(5)	(6)
		121	553	7.33	
			558	0.79	
			568	1.51	
			598	1.48	
			634	2.31	
				13.42	
		122	555		
		126	609	2.74	
			622	1.53	
			605	0.47	
			606	0.36	
				5.10	
		143	620	1.82	
			650/1,2	1.74	
			651	1.73	
			619	1.38	
				6.67	
		145	809/2	8.00	
		147	236/1	45.75	
		149	652	1.95	
			669	0.32	
			688	1.65	
			653	3.01	
				6.93	
		157	404/1	19.74	
		167	824	7.46	
		173	44	9.30	
		179	59/1,2	12.93	
			56/1,2	3.96	
				16.89	
		183	417/1	4.18	
			408/1B	2.83	
			408/1C	1.08	
				8.09	
		186	437	11.67	
			438	1.78	
			441	10.22	
			442	3.45	
				27.12	
		188	529	6.78	
		190	545	4.82	
			607/1	0.80	
				5.62	

(1)	(2)	(3)	(4)	(5)	(6)
		191	575	1.63	
			578	0.84	
			1.58	2.92	
			771511/1, 2	2.31	
				9.28	
		199	334/1	3.80	
			307/2	9.27	
				13.07	
		200	403/4B	4.10	
			411/1B.2C	3.94	
				8.04	
		201	453	2.86	
			523	3.51	
			524	0.07	
				6.44	
		207	775/1& 2	5.33	
		217	929	7.19	
		220	31	11.35	
			47	6.80	
			33	0.79	
			41	0.36	
				19.30	
		225	403/2B	5.38	
		227	37	4.27	
			42/1	1.08	
			209/1	0.95	
			416/2	6.97	
				13.27	
		243	719	2.71	
			899	2.29	
				5.00	
		246	91/2	5.88	
		248	391	9.42	
		251	673/2	12.67	
		253	405	5.68	
		254	303	6.23	
		255	83	3.05	
			84	3.13	
			85	2.00	
			86/2	4.88	
				13.06	

(2)	(3)	(4)	(5)	(6)
	258	379	6.23	
	259	618	1.16	
		668/1	1.03	
		670	0.32	
		680/1	0.41	
		681	3.54	
			6.46	
	260	7	6.06	
	263	695	0.17	
		696	4.98	
		694	1.12	
			6.27	
	277	63/1, 2	6.32	
		72/1, 2	2.67	
			8.99	
	278	101	5.30	
	279	95/3	4.95	
	282	268	6.89	
	283	304	11.39	
		312/1	1.59	
			12.98	
	284	403/1B	5.85	
		411/2A	1.50	
		409	1.82	
			9.17	
	285	408/1A	3.92	
		417/8	4.18	
			8.10	
	293	745/1	7.68	
	298	403/6	6.38	
	307	393	0.37	
		395/1, 2	8.46	
			8.83	
	312	96/2	9.35	
		96/1	3.11	
		774/2	2.12	
			14.58	

(1)	(2)	(3)	(4)	(5)	(6)
		332	53	6.24	
			62/1	2.93	
			68/1	2.35	
				11.52	
		334	21/3	6.40	
				2.20	
				8.60	
		339	78	259.80	
			76	3.50	
			77	10.62	
				273.92	
		350	208	5.70	
		351	211	13.21	
		370	381	11.20	
		386	658	9.03	
		387	677	9.03	
		388	750/4	7.50	
			753/1A	13.59	
			753/1A3	6.00	
			753/6	0.53	
				27.62	
		402	93	5.89	
		408	425/1	5.86	
		410	436/1	8.80	
		413	533, 588 583, 584 603 & 604	21.95	
		420	26	7.96	
			28	3.92	
				11.88	
		424	74/1, 2,3	44.17	
		427	94	7.01	
		437	209	23.58	
		438	210	16.78	
		454	3	5.22	
			9	3.62	
				8.84	
		455	6	2.88	
			10	2.61	
				5.49	

(1)	(2)	(3)	(4)	(5)	(6)
		460	12, 16 and 27	13.99	
		474	940/2	6.64	
			941/1	4.62	
				11.26	
		495	765/2	8.73	
			325/1	1.91	
			762/2	5.02	
			764/2	7.53	
				23.19	
		496	954	0.56	
			777/2	2.20	
			99	7.48	
				10.24	
		499	963	5.84	
		501	964/2	3.80	
			965	2.20	
				6.00	
		504	413/4A	7.40	
			4B	5.80	
				13.20	
		505	767	6.49	
		511	159	12.01	
		513	98/2	6.10	
		514	98/3	5.95	
		515	98/4	6.05	
		516	98/5	5.95	
		518	55	21.65	
		519	765/2	8.73	
		520	397/2	6.10	
			398	3.60	
				11.70	
		524	753/4	11.73	
		525	287/2	7.69	
		528	154	6.82	
		529	790	7.68	
			799	1.22	
			801	1.00	
			802	1.11	
				11.01	

(1)	(2)	(3)	(4)	(5)	(6)
		532	54, 68/2 and 70	13.79	
		535	387	9.05	
		536	436/3	12.55	
		538	941/1	9.28	
			940/1	5.67	
			941/3	1.89	
				16.84	
		540	413/3	14.50	
		542	67	11.58	
		543	65	11.13	
		545	753/1B	5.05	
		546	750/1	2.62	
			753/1C	4.55	
				7.17	
		548	750/2	2.57	
			753/1F	5.33	
				7.90	
		549	750/3	2.62	
			753/1F	4.36	
				6.93	
		550	63/2	322.26	
		559	296	7.22	
		563	207/2	18.93	
		565	319/2	3.69	
			319/1	5.21	
				8.90	
		566	245/2	7.77	

Appendix No. XXIII.

List of very poor stocking or failure plantations in Dindigul division.

Serial number.	Year of plantation.	Location or name of the plantation.	Area in hectars.	Remarks (Species already raised).
(1)	(2)	(3)	(4)	(5)
		I. Kannivadi Range.		
1	1959	Virupakshi south fuel series	12.14	misc.
2	1959	Chatrappatti Ex-zamin	12.00	Do.
3	1963	Komalipatti	8.09	Do.
4	1963	Virupakshi South F. C.	8.09	Do.
5	1964	Virupakshi South F. C.	16.60	Do.
6	1966	Ayampalayam (Kannivadi Ex-zamin)	27.50	Do.
7	1969	Pachalur	1.10	Do.
8	1969	Virupakshi South F. C.	.10	Sandal.
9	1973	Komalipatti	[illegible].00	Do.
10	1974	Komalipatti	3.04	Do.
11	1975	Komalipatti	2.84	Do.
12	1978	Karuveppilai Odai	2.50	Do.

II. Ayyalur Range.

Serial number.	Year of plantation.	Location or name of the plantation.	Area in hectars.	Remarks (Species already raised).
1	1961	Thoppasamimalai North F. C.	14.19	Misc.
2	1961	Thoppasamimalai Central Series	12.30	Do.
3	1961	Moongil karadu F. C.	3.03	Do.
4	1961	Mudimalai F. C.	13.60	Do.
5	1963	Thoppasamimalai North F. C.	6.67	Do.
6	1964	Mudimalai F. C.	18.00	Do.
7	1965	Mudimalai F. C.	20.00	Do.
8	1965	Mudimalai F. C.	4.00	Do.
9	1965	Pillaiyarnatham	10.00	Do.
10	1965	Mudimalai	4.00	Sandal
11	1966	Mudimalai	4.00	Do.
12	1966	Pannamalai	10.00	Misc.
13	1966	Pannamalai R. F.	4.00	Tamarind
14	1968	Mudimalai	16.00	Misc.
15	1971	Moongil Karadu	1.00	Sandal
16	1974	Pannamalai R. F.	9.20	Tamarind.
17	1975	Pannamalai R. F.	9.15	Do.
18	1975	Pillayarnatham	2.30	Sandal.

Serial number.	Year of plantation.	Location or name of the plantation.	Area in hectares.	Remarks (Species already reaised).
(1)	(2)	(3)	(4).	(5)
		III. Bodinaickanur Range :		
1	1962	Pudukkulam	5.56	Silk cotton.
2	1963	Puc ukkulam	4.04	Do.
3	1963	Pudukkulam	2.00	Bamboo.
4	1965	Kottakudi Ex-zamin	12.94	Misc.
5	1965	Kottakudi Ex-zamin	4.04	Silk cotton.
6	1969	Kallikombai Modakku	10.11	Misc.
7	1969	Kallikombai Modakku	10.60	Silk cotton.
8	1971	Kallikombai Modakku	1.27	Do.
9	1972	Kallikombai Modakku Bit I	8.65	Tamarind
10	1972	Kallikombai Modakku Bit II	11.25	Do
11	1973	Kottakudi Ex-zamin	8.75	Silk cotton.
		IV. Periyakulam Range.		
1	1963	Pambar	10.00	Ailanthus.
2	1963	Pambar	10.00	Do.
3	1963	Pambar (Vannathi Odai)	2.80	Bamboo.
4	1963	Adukkam	4.00	E. H.
5	1963	Murugamalai	4.00	Do.
6	1963	Iruttar	4.00	Do.
7	1964	S. S. R. F. Bit I	6.87	Do.
8	1964	S. S. R. F. Bit II	61.07	Do.
9	1964	S. S. R. F. Bit III	46.13	Do.
10	1965	Iruttar	28.32	Misc.
11	1965	Agamalai	8.00	Ailanthus.
12	1966	Murugamalai	8.49	Misc.
13	1966	Nallar	8.09	Tamarind.
14	1966	Amburivi	13.35	Silk cotton.
15	1966	Amburivi	24.28	Do.
16	1966	Amburuvi (Sothuparai)	17.04	Do.
17	1966	Murugamalai	8.40	E. H.
18	1966	Pambar	9.60	Do.
19	1966	Iruttar	4.00	Do.
20	1967	S. S. R. F.	4.00	Do.
21	1967	Chelumbu	3.20	Silk cotton.
22	1967	Chelumbu	11.75	Do.
23	1968	Kombakkarai	19.82	Do.
24	1968	Murugamalai	2.83	Tamarind.
25	1969	Pambar	12.92	Do.
26	1969	Paruthippodu	6.07	Silk cotton.
27	1969	Thodas Saragam	6.07	Do.

Serial number. (1)	Year of plantation. (2)	Location or name of the plantation. (3)	Area in hectare. (4)	Remarks (Species already raised). (5)
28	1970	Pulikkutti Saragam	2.40	Silk Cotten
29	1970	Iruttar	2.00	Do.
30	1970	Pambar	5.50	Tamarind.
31	1972	Pambar F. C.	25.93	Silk cotton.
32	1974	Kombakkarai	5.26	Tamarind.
33	1974	Sanniyasikulipallam Bit I	4.75	Silk cotton.
34	1974	Sanniyasikulipallam Bit II	5.05	Do.
35	1974	Sanniyasikulipallam Bit III	5.77	Do.
36	1975	Kombakkarai	3.23	Tamarind.
37	1977	Eachamalai	9.00	Do.
38	1978	Thambattan Karadu Bit II	1.50	Do.
39	1979	Kadathurai	6.30	Silk cotton.

APPENDIX No. XXIV.

Control Journal.

(i) *General.*—Comments on growing stock and other connected problem.

(ii) *Regeneration operations.*—Comments on regeneration technique and area planted, species raised and the performance of species, cost of Raising, etc.

(iii) *Cultural Operations.*—Brief comments on cultural operations if carried out.

(iv) *Harvest.*—Brief notes on yield obtained, Rotation, agency of harvest, sale, prices obtained and main centre of consumption of produce.

(v) *Measures of improvements.*—Detailed notes on experiments connected for improvements and suggestions.

APPENDIX No. XXV.

Control Forms.

The Teak Plantation Working Circle.

(a) Control of regeneration works.

Range :

Prescribed.				*Carried out.*			*Control.*			
Year.	*Locality.*	*Area in hectare.*	*Salient future of technique item wise.*	*Year of operation.*	*Locality.*	*Area regenerated.*	*Implementation of technique.*	*Deviation if any.*	*Reason and authority.*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(b) Teak plantations : (Thinning).

Range :

Prescription.					*Carried out.*			*Deviation.*			*Remarks.*
Year of plantation.	*Series.*	*Year of*	*Series. thinning.*	*R.F. Locality. hectare.*	*Year of*	*Area in hectare.*	*R.F. Locality.*	*Area in realised.*	*Yield (no of poles).*	*Revenue realised.*	*Reason. Authority*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

Rehabilitation Working Circle.

(a) Control of regeneration operations.

Range:

Prescribed.				Carried out.				Control.		
Year.	Locality.	Area in hectare.	Salient features of technigues Itemwise.	Year of operation.	Locality.	Area regenerated.	Implementation technique.	Deviation if any.	Reasons and authority.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(b) Control of maintenance operations.

Range :

Name of the plantations.	Replacement of casualities.				weedings.			
	Date of completion.	Prescribed date.	Deviation.	Reasons.	Date of completion.	Prescribed date.	Deviation.	Reasons.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

The Puel Working Circle.

Record Fellings.

Range :

Year.	Operations prescribed.			Operations carried out.			Yield. hectares.	Revenue realised.	Deviation	Remarks.
	Name of series.	Coupe number.	Area in hec.	Name of series.	Coupe number.	Area in number.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

Bamboo Working Circle.

(a) Control of fellings and record of yield.

Range :

Series.	Prescribed.			Worked.		Yield.				Revenue.	Contrl
						Weight or number.					
	Year.	Coupe number.	Area.	Coupe number.	Area in hectares.	BS.	DS.	BA.	DS.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

(b) *Control of regeneration works.*

Range :

Year.	Prescribed.			Carried out.			Control.			Remarks.
	Locality.	Area in ha.	Salient future of technique item wise.	Year of operation.	Locality.	Area regenerated.	Implementation of technique.	Deviaction if any.	Reason and authority.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

(c) *Control of departmental tending and exploitation.*

Range :

	Prescribed.			Carried out.			Yield.		Control of deviation.	Authority.	Remarks.
	Year of plantation.	Tending: Thinning.	Exploitation.	Year of plantation.	Tending: Thinning.	Exploitation.	Tendi g or thinning.	Exploitation.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

The Silk Cotton Working Circle.

Record of regenaration and other operations.

Range:

Year.	*Operation prescribed.*			*Operation carried out.*		*Revenue.*		**Expenditure.**	*Dieviation.*	**Remarks.**
	Nature of operation.	*Locality.*	*Area in ha.*	*Locality*	*Area in ha.*	*Yield in tons.*	*Amount in Rs.*			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)

Minor Forest Produce Working Circle.

1. (*a*) *Control book.*

Year.	*Prescription.*				*Record of operations carried out.*					*Control.*	
	Name of produce.	*Method of working.*	*Unit of lease.*	*Period of lease.*	*Method of working.*	*Unit of lease.*	*Period of lease.*	*Yield obtained.*	*Grose revenue.*	*Expenditure incurred.*	*Deviations if any.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

(*b*) *Record of revenue realised.*

RANGE :

Serial number.	Lease unit.	Revenue realised (Rs.) for each year of the plan period.									
		1984—85	1985—86	1986—87	1987—88	1988—89	1989—90	1990—91	1991—92	1992—93	1993—94
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

(*c*) *Control of regeneration operation.*

RANGE :

Serial number.	Year of plantation.	Locality.	Prescribed			Carried out			Control.		Revenue realised by sale of the natural growth.	Remarks.
			Area in hectares.	Species	Locality.	Area in hectares.	Species.	Reason for deviation.	Authority.	Expenditure.		
(1)	[2]	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)

(*d*) *Thinning Operation.*

Serial number.	Year of plantation.	Area in hectares.	Thinning Carried out year.	Ex. dt.	Revenue realised from thinning.	Remarks.
(1)	(2)	(3)	(4)	(5)	(6)	(7)

MISCELLANEOUS PRESCRIPTION.

1. *Grazing.*

Year	Prescription.		Results.	Control.	
	Area classed for grazing	*Total area open for grazing.*	*Grazing. Revenue.* *Grazing recvenue realised with full particulars.*	*Number of cattle unit grazed.*	*Grazing incident.*
(1)	(2)	(3)	(4)	(5)	(6)

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Fire Control.

Range:

Year.	*Reserved Forest.*	*Month of fire occurrance detected.*	*Area affected in hectares.*	*Causes of fire*	*Steps taken control such recuby fire.*	*Value of damages affected by fire.*	*Remarks.*
	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Roads/Culverts/Bridle Paths.

Name of the Roads/Bridle paths.

Range :

Year.	*Prescription.*			*Carried out.*									
	Old roads to be repaired in K.Ms. unmettalled.			*Unmettalled road Kms.*		*Expenditure for roads. Rs.*		*Expenditure for widenning bridle paths.*					
	Widenning.	*Mettalling.*	*Bridle paths to be developed into jeep trucks Kms.*	*widenning.*	*Mettalling.*	*Widenning.*	*Mettalling.*			*Deviation for both.*	*Name of culverts repaired.*	*Expenditure for culverts (Rs.)*	*Remarks.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

Buildings.

Range :

Serial number.	Maintenance and repairs.			Cost of repairs. (Rs.)	Year.	New buildings.			Remarks.
	Year.	Name of the buildings.	Nature of repairs.			Number of building proposed.	For when constituted.	Cost of building.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Boundaries.

Range :

Serial number	Name of the reserved forest.	Prescription.		Carried out.			Deviation.	Remarks.
		Description of boundary to be repaired	Length in Kms.	Description of boundary repaired.	Length	Expenditure		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Control Records for the various HE working circle.

(a) *Record of regeneration operation (Artificial regeneration).*

Range :

Year.	*Prescription of the working plan.*		*Operation actually carried out.*		*Cost of regeneration operations.*	*Deviation.*	*Remarks.*
	Locality.	*Area.*	*Locality.*	*Area.*			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(b) *Record of fellings.*

Range :

Year.	*Prescription of the working plan.*		*Operations carried out.*		*Yield and revenue realised.*			*Deviation.*	*Remarks.*
	Locality.	*Area in ha.*	*Locality.*	*Area in ha.*	*Drescription of produce.*	*Yield in tons.*	*Revinenne realisation rupees.*		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

[c] *Record of subsididary sivicultural Operation-*

Range :

Year.	*Operations prescribed.*			*Operations carried out.*		*Cost of operations.*	*Deviations.*		**Remarks.**
	Nature of operation.	*Locality.*	*Area in ha.*	*Locality.*	*Area in ha.*		*Extent of deviation.*	*Reasons for the deviations.*	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Failure plantations.

Range :

Serial number	Year of plantation.	Prescription.			Carried out.			Remarks.
		Species planted earlier.	Area in ha.	Year of restocking.	Species restocked	Area ha.	Expenditure.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Register of Deviation

Range :

Year.	*Serial number and deviation.*	*Control form number and page.*	*Paragraph*	*Prescription*	*Nature of deviation*	*Remarks*
(1)	(2)	(3)	4	(5)	(6)	(7)

B. Record of Works.

Working Circle (Common to all working Circle).

Year.	Prescription of the working plan.		Record of works.		Remarks.
	Paragraph number.	*Nature of works.*	*Details.*	*Cost.*	
(1)	(2)	(3)	(4)	(5)	(6)